



# Golden 300N Wireless USB Adapter

Model # AWLL6077v2

User's Manual

Rev. 1.0

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# 1. Introduction

Congratulations on your purchase of the Golden 300N Wireless USB Adapter! Its high bandwidth combined with extended wireless coverage delivers fast and reliable connection for all of your networking applications. The adapter will yield a higher throughput especially when it is used with other Airlink101® Wireless 300N or Wireless N products.

A full range of security features WEP, WPA-PSK, and WPA2-PSK provide you the highest level of wireless network security. The bundled wireless utility Airlink101 Wireless Monitor allows you to set up the adapter with an easy-to-use user interface. The Golden 300N Wireless USB Adapter works with 802.11 b/g/n network devices to ensure compatibility with your existing wireless products.

## 1.1 Package Contents

Before you begin the installation, please check the items of your package. The package should include the following items:

- Golden 300N Wireless USB Adapter
- Quick Installation Guide
- Installation CD (Driver/Utility/Manual)

## 1.2 Features

- Industry's highest wireless data rate of up to 300Mbps\* with IEEE 802.11n draft 2.0 standard
- Easy Setup Button for easy connection to the existing wireless network
- WPA2-PSK, WPA-PSK enhanced security to provide a full protection for your wireless connection
- Higher data rate and wider coverage to increase the reliability and stability of wireless connection
- Great for environments that need higher wireless data traffic
- Fully backward compatible with 802.11b/g
- RoHS compliant

## 2. Install Wireless USB Adapter

This section provides instructions on how to install the **Golden 300N Wireless USB Adapter**. The driver is installed along with the utility.

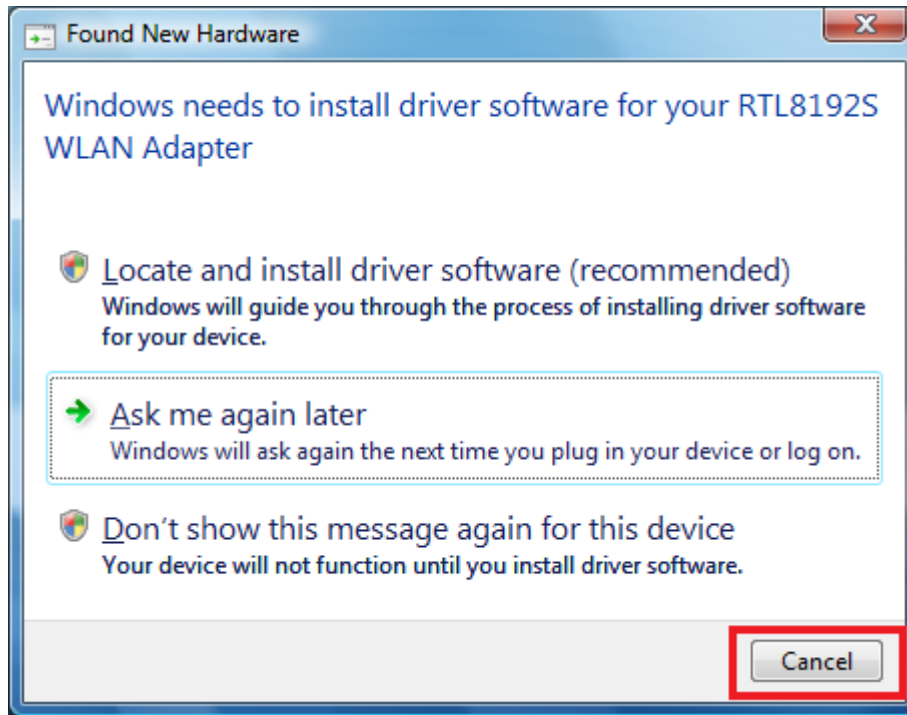
**Step 2.1** Insert the USB adapter into an available USB port of your computer.

**Step 2.2** Click **Cancel** when you see the **Found New Hardware Wizard**.

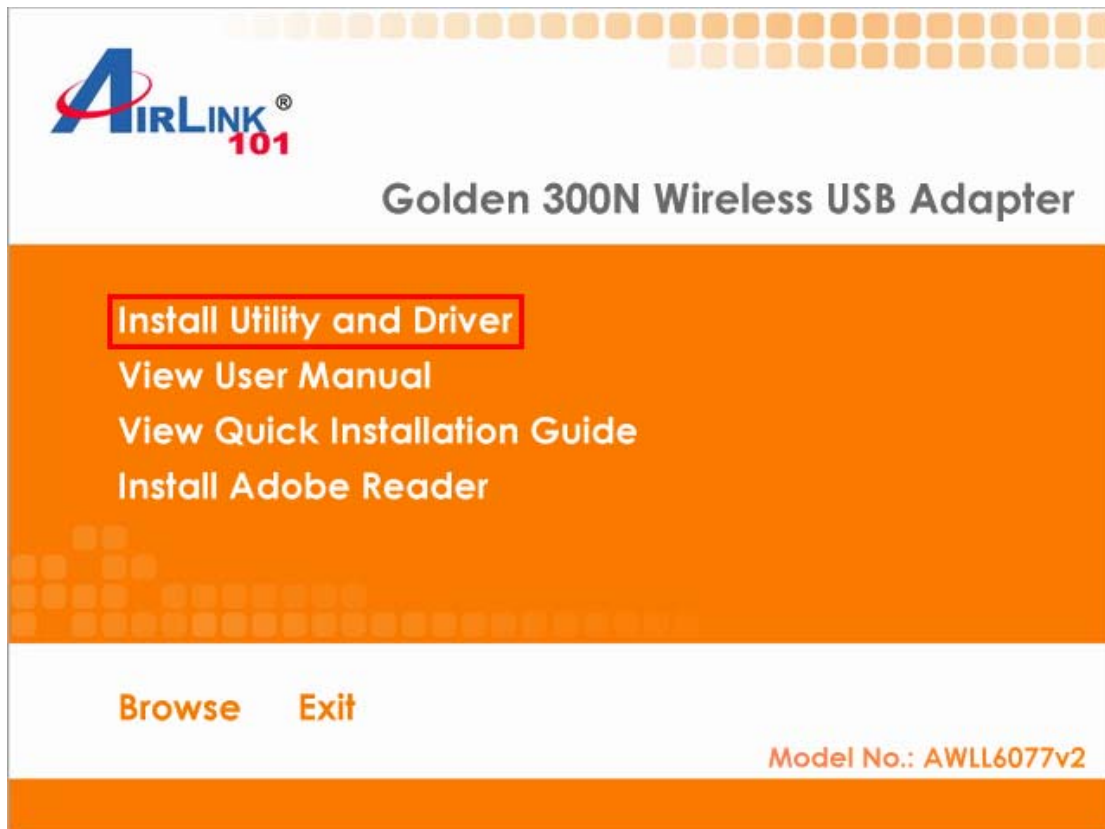
**Windows XP/2000 Users:**



**Windows Vista Users:**



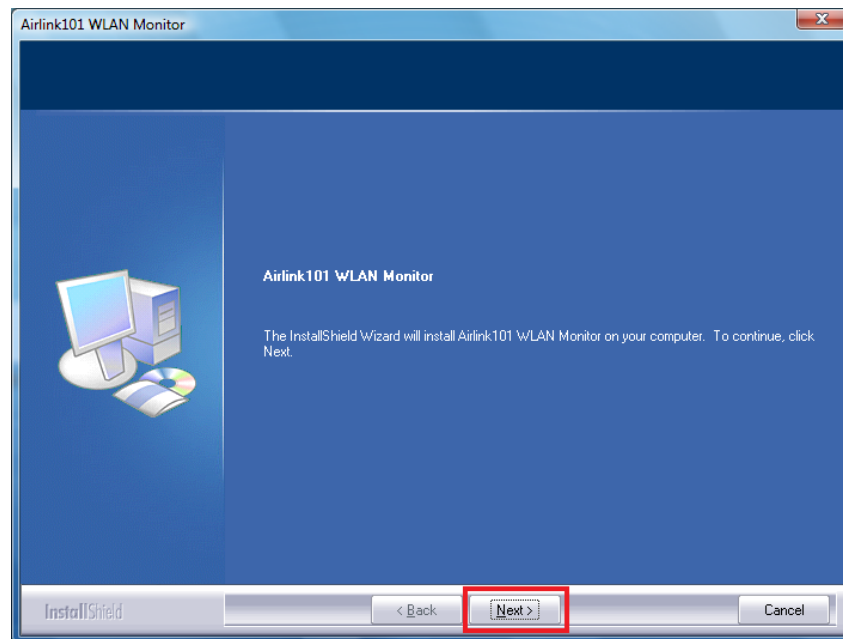
**Step 2.3** Insert the Installation CD in the CD drive. The Autorun screen will pop up. Select **Install Utility and Driver** from the menu.



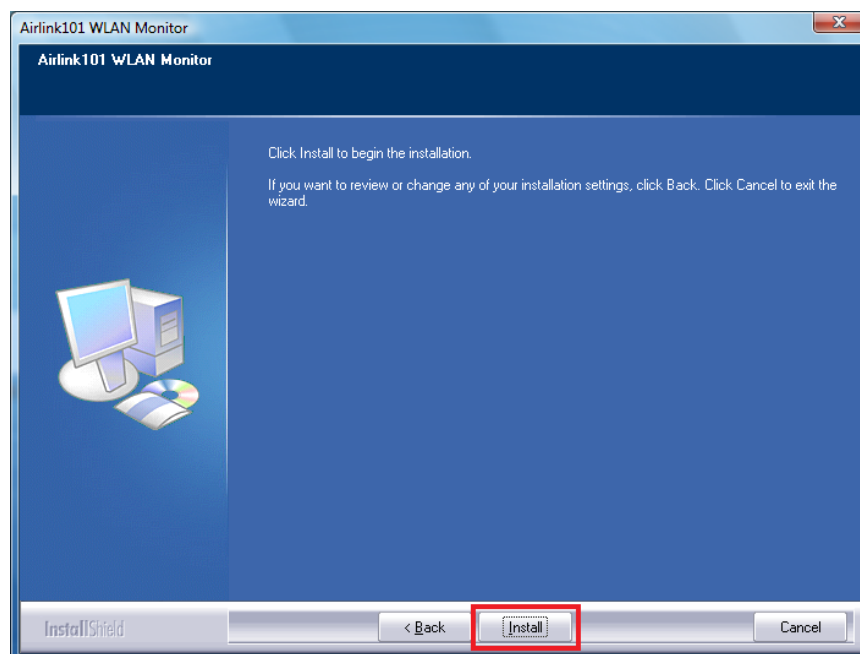
**Note:** If the Autorun screen doesn't appear automatically go to **Start, Run,** and type **D:\Utility\Setup.exe** (where **D** is the letter of your CD drive) and click **OK**.

**Windows Vista Users:** When you get warning message(s), make sure that you **give permission** to continue with the installation of the driver software.

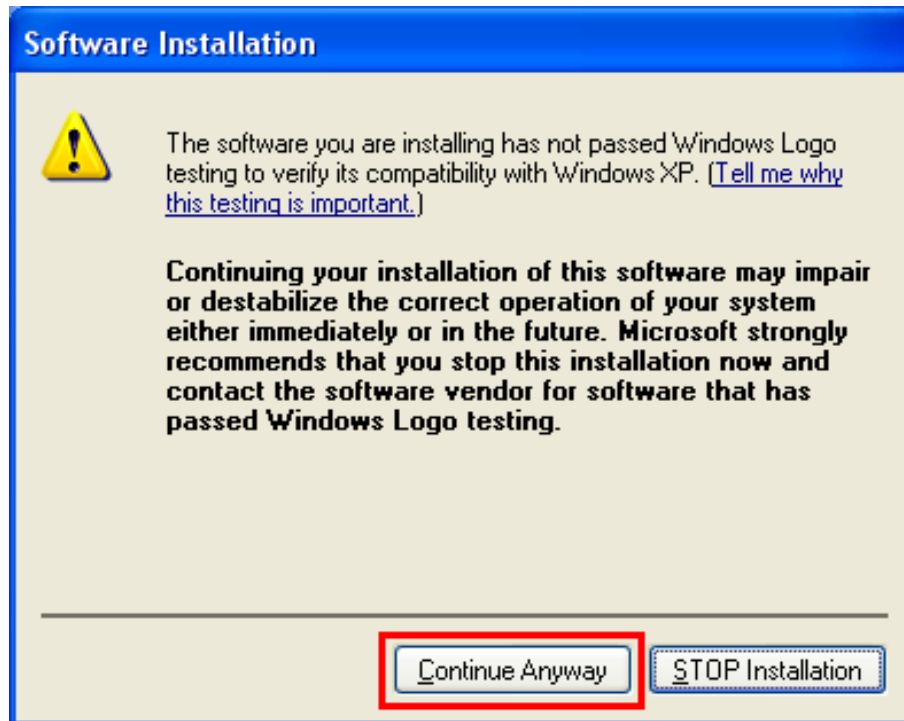
**Step 2.4** The Airlink101 WLAN Monitor screen will popup. Click **Next** at the screen.



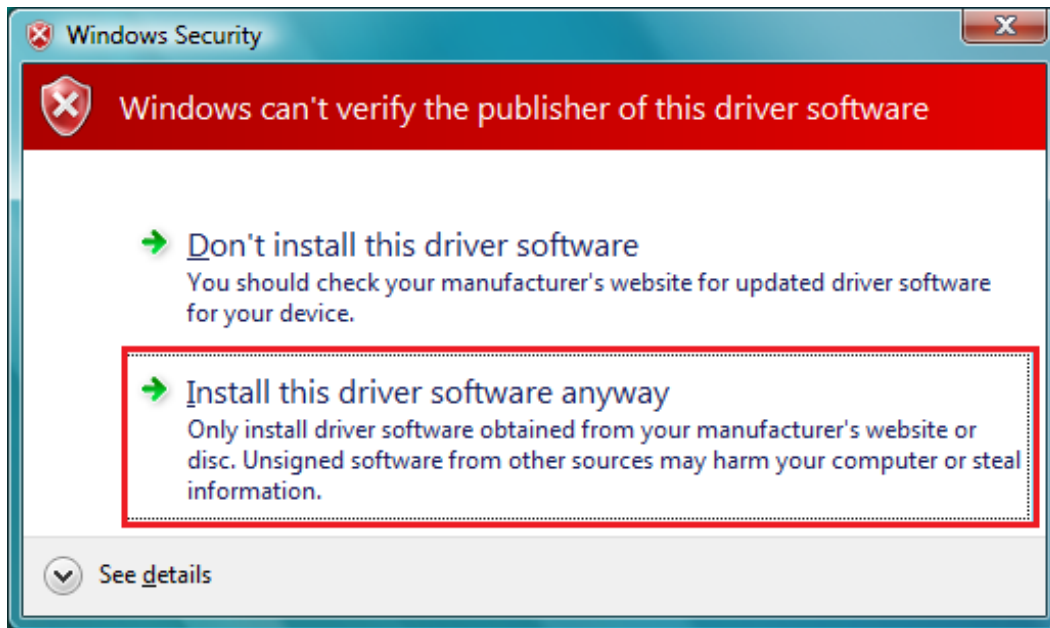
**Step 2.5** Click **Install** to begin the installation.



**Step 2.6** For Windows XP, click on **Continue Anyway**.



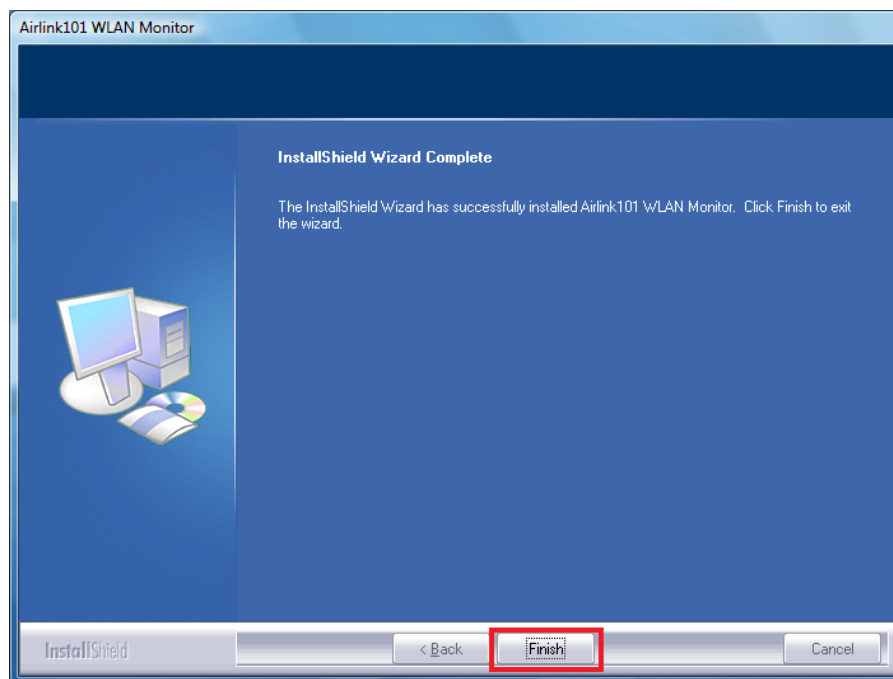
For Windows Vista: click on **Install this driver software anyway**.



Please wait when Windows is installing the driver for Airlink101 Wireless Adapter and the utility, Airlink101 Wireless Monitor.

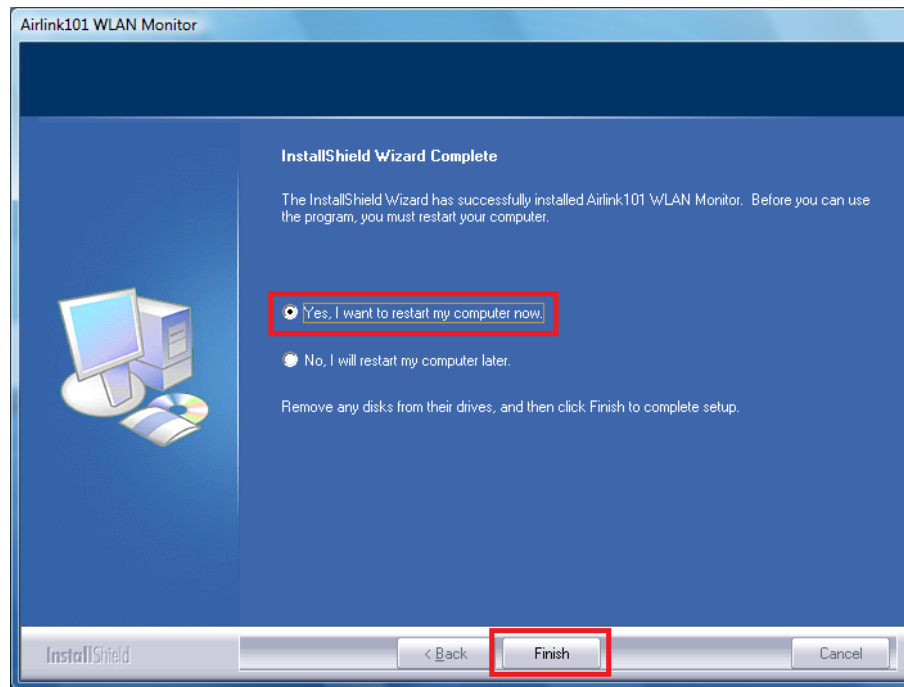


**Step 2.7** Click **Finish** to complete the installation.





**Step 2.8** Select **Yes, I want to restart my computer now**. Click **Finish** to complete the installation.

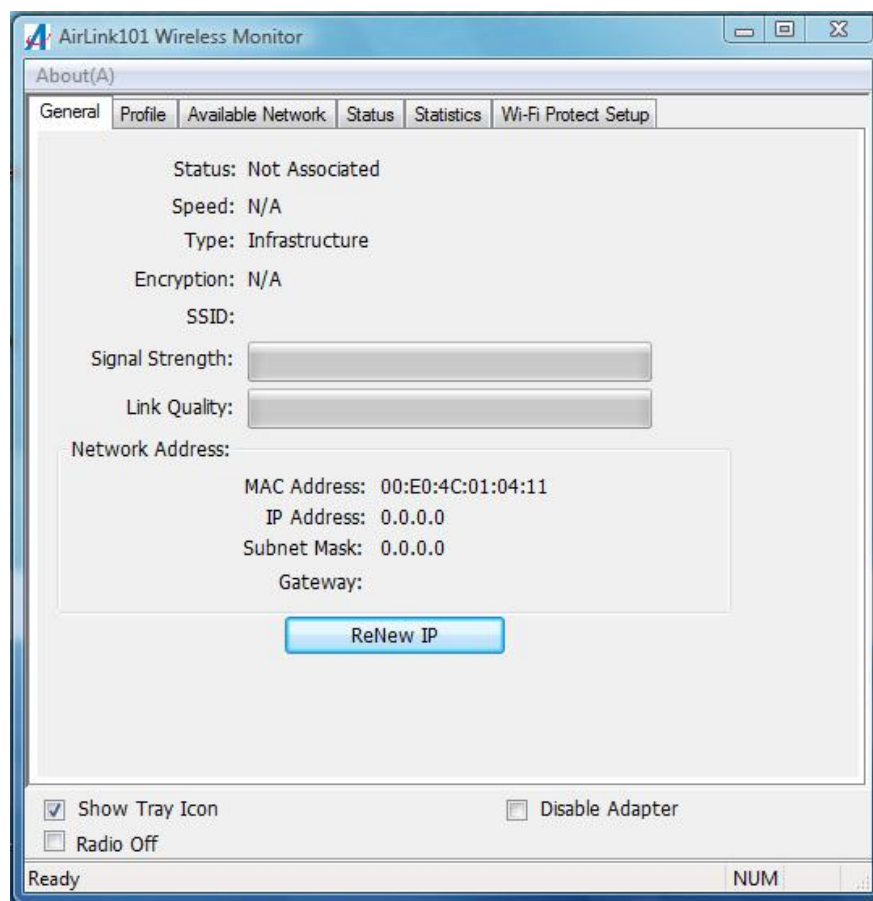


The driver and utility have been installed. Please continue to the next section.

### 3. Connect to Wireless Network

This section describes how to connect your wireless USB adapter to a wireless network.

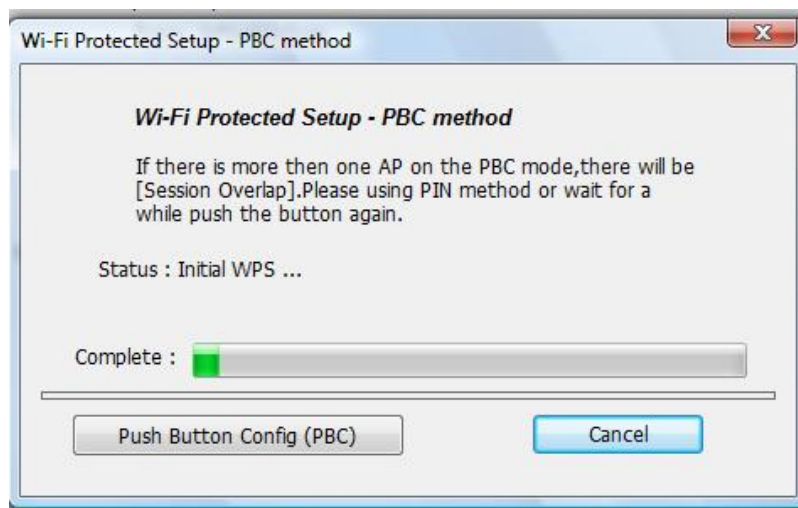
**Step 3.1** Open the Airlink101 Wireless Monitor utility by double clicking on the Airlink101 Wireless Monitor Utility icon in the system tray at the bottom right-hand corner of your screen.



#### Step 3.2

The Easy Setup Button (Wi-Fi Protected Setup) is a new and easy way to configure the encryption for your wireless network clients. In order to use it, you need to have a router that supports this feature. [If your router doesn't support Easy Setup Button function \(Wi-Fi Protected Setup\), continue to Step 3.4.](#)

1. Push the Easy Setup Button of the Adapter until you see the following window pops up on the monitor.



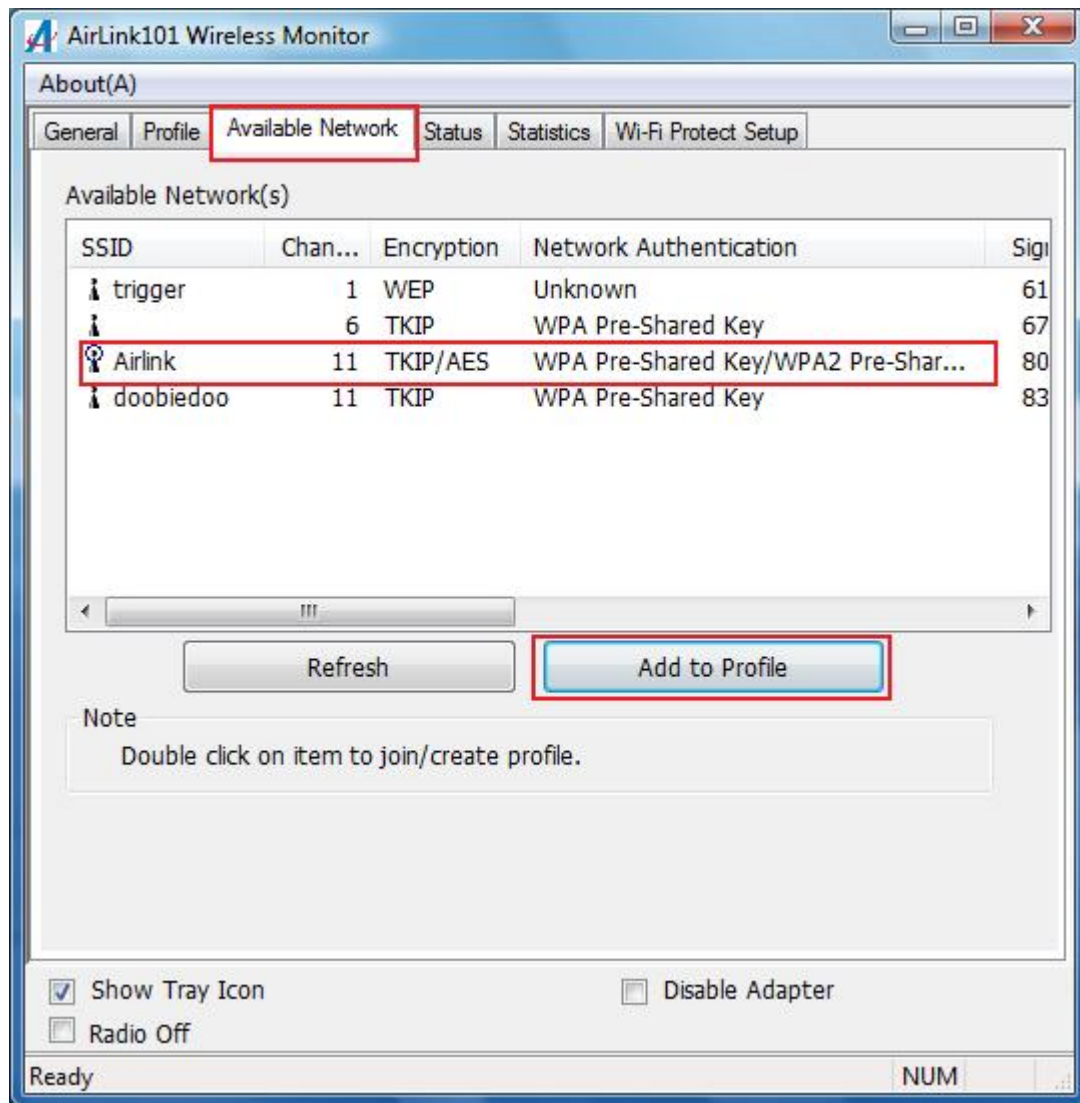
This window pops up to acknowledge you the Adapter is starting to establish a connection.

2. Within the following 2 minutes, push the Easy Setup Button (i.e. WPS Button) of the Router for 3 seconds. The picture below shows Airlink101 AR675W Wireless N Green Router.



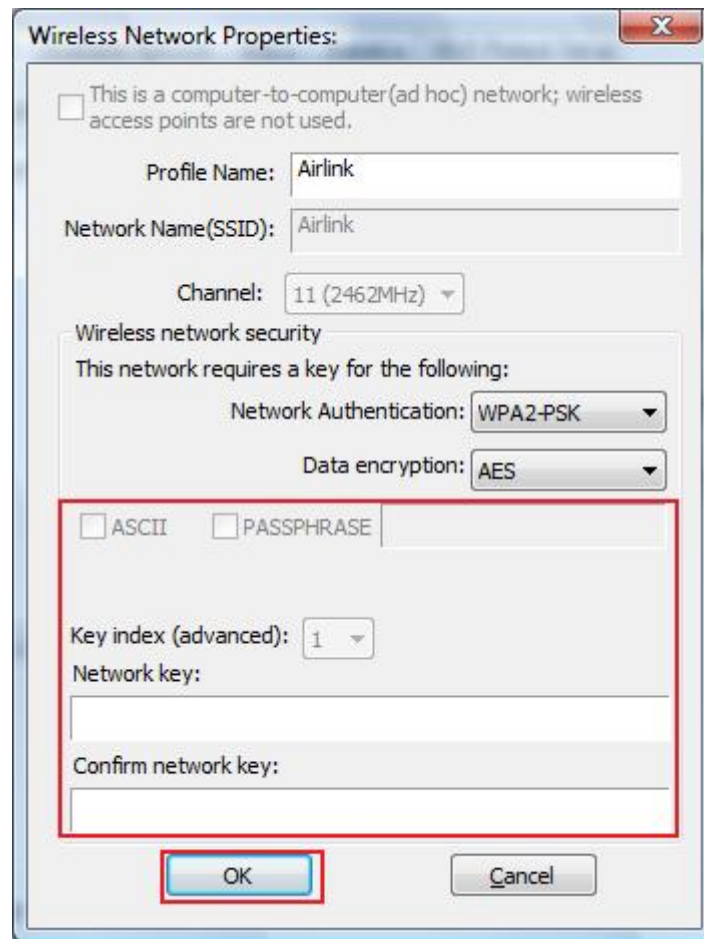
3. The router will now start the handshake with the wireless USB adapter. The connection will be established in 2 minutes. Continue to Step 3.5.  
If the connection is not able to establish, continue to Step 3.3.

**Step 3.3** Click the **Available Network** tab of the Wireless Monitor, select the **SSID** (Network Name) of the wireless network that you wish to connect to, and click **Add to Profile**.



If the network that you are attempting to connect does not have encryption enabled, you will receive a warning about connecting to an unsecured network. Click OK to complete the connection.

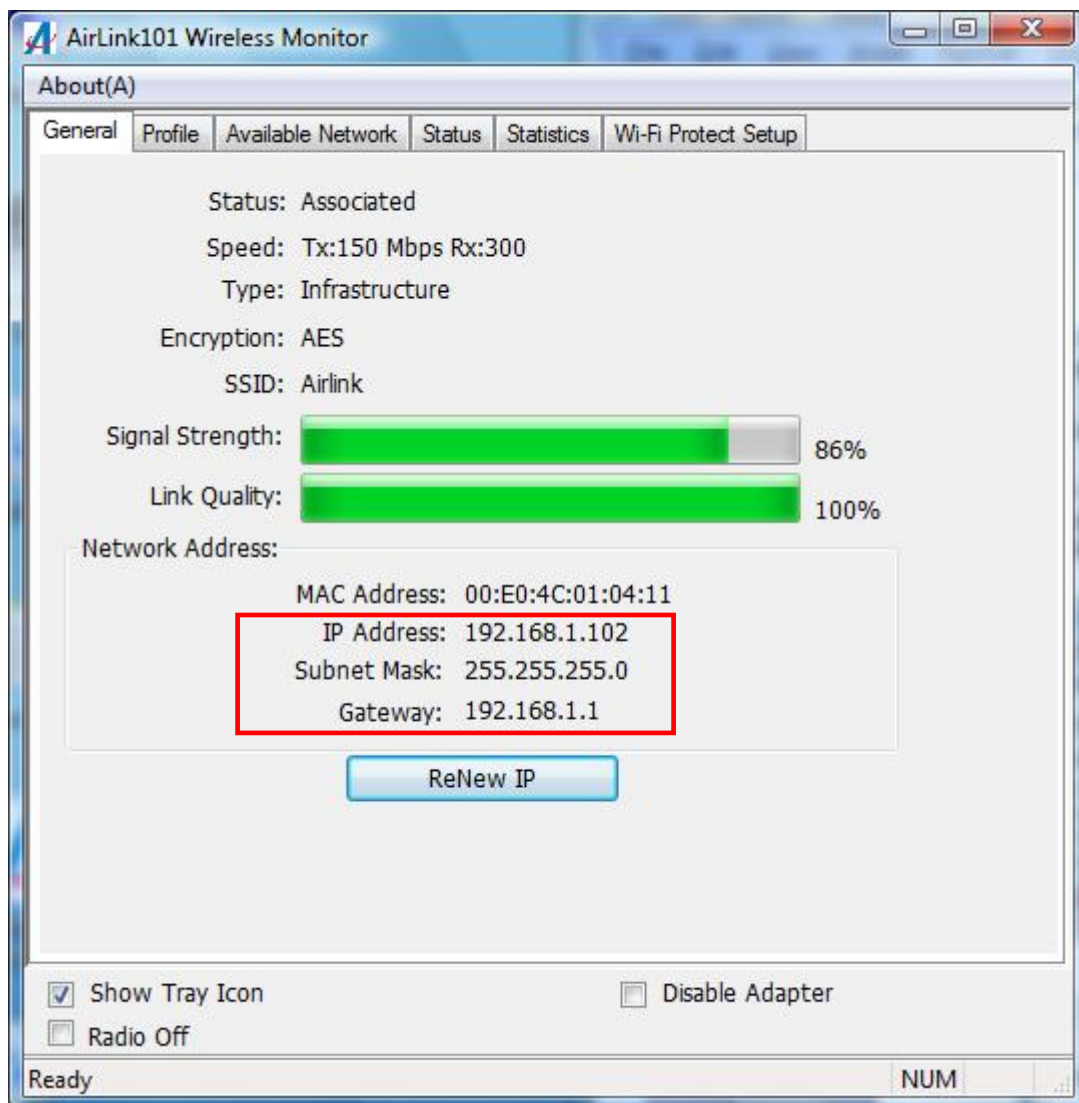
**Step 3.4** Enter the wireless security key into the **Network Key** box if the network you are attempting to connect has wireless security enabled. Click **OK**.



The Adapter will automatically detect the type of Network Authentication and the Data encryption. All you need to do is to enter the Network Key in the appropriate boxes according to the settings of the wireless router and then click **OK** to connect.

**Step 3.5** The connection should be now established. Go to General tab to check the status of the connection. Verify that IP Address, Subnet Mask and Gateway have valid numbers assigned to them (instead of all 0's). The **Status** should be Associated, and there will be green bars next to **Signal Strength** and **Link Quality**.



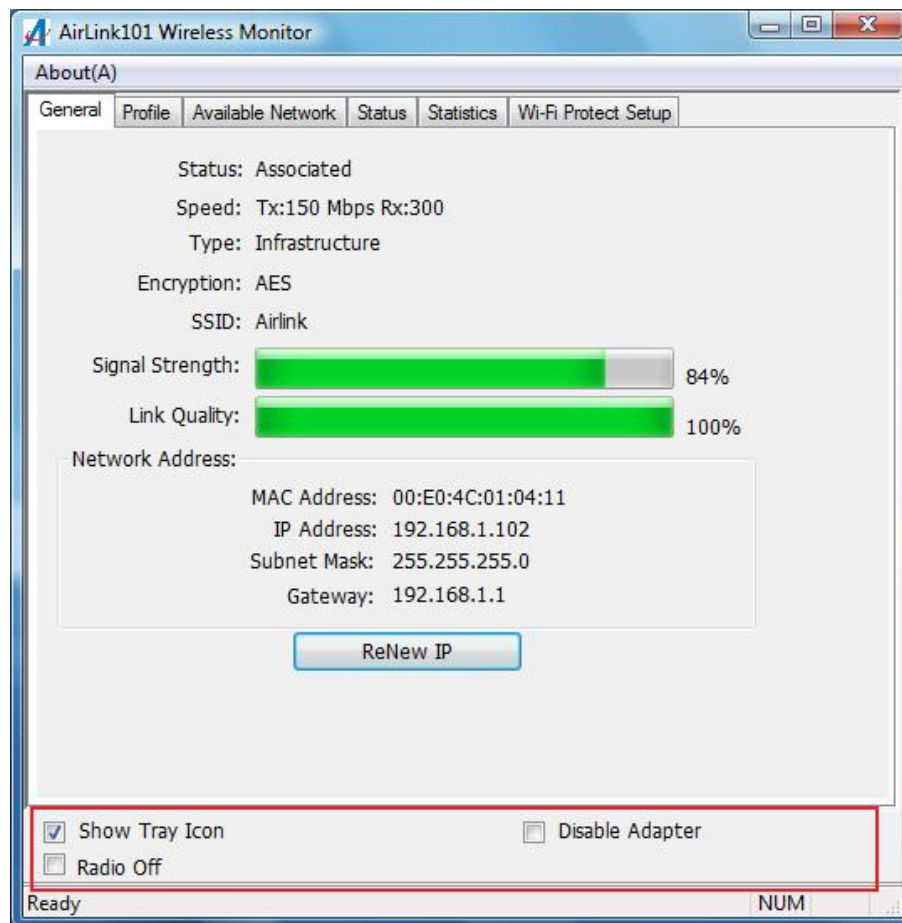


## 4. Wireless Monitor

This section describes the various functions of the Wireless Monitor that you can configure, including the settings of wireless encryption.

### 4.1 General

The **General** tab provides you with the status of the current connection, including signal, network name (SSID) and IP Address.



At the bottom you have options for controlling the utility and adapter.

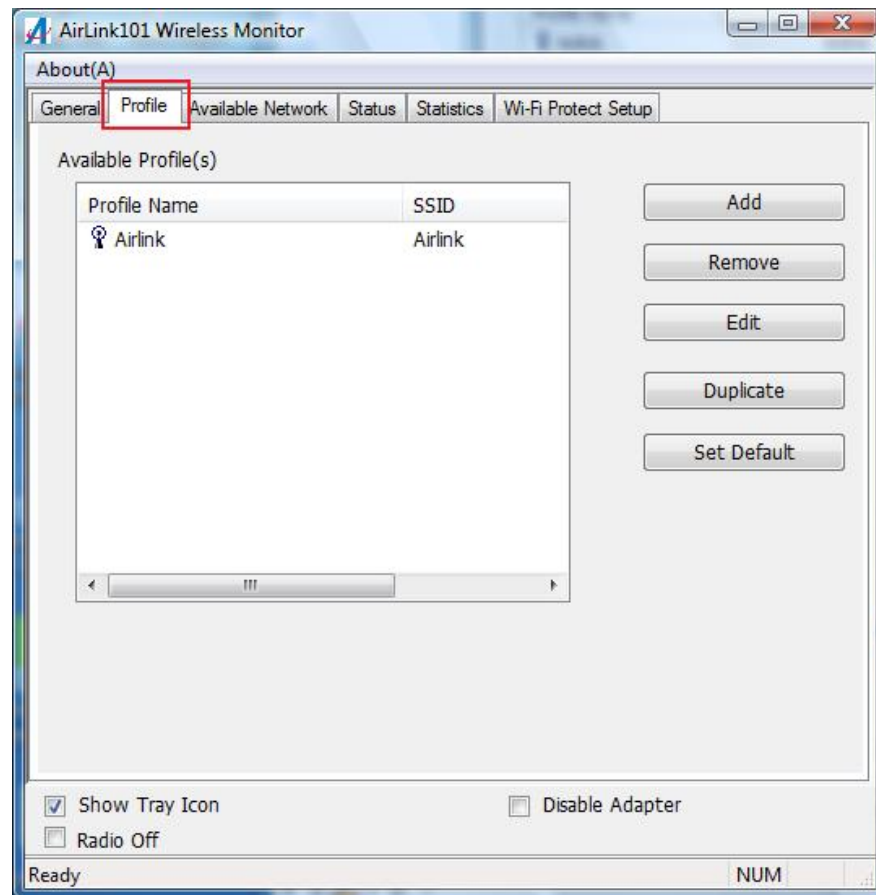
**Show Tray Icon** allows you to show or hide the tray icon for the utility.

**Radio Off** disables the wireless function of the adapter.

**Disable Adapter** will completely disable the wireless adapter.

## 4.2 Profile Settings

The **Profile** tab lists the current profiles and allows you to add/remove/edit profiles.



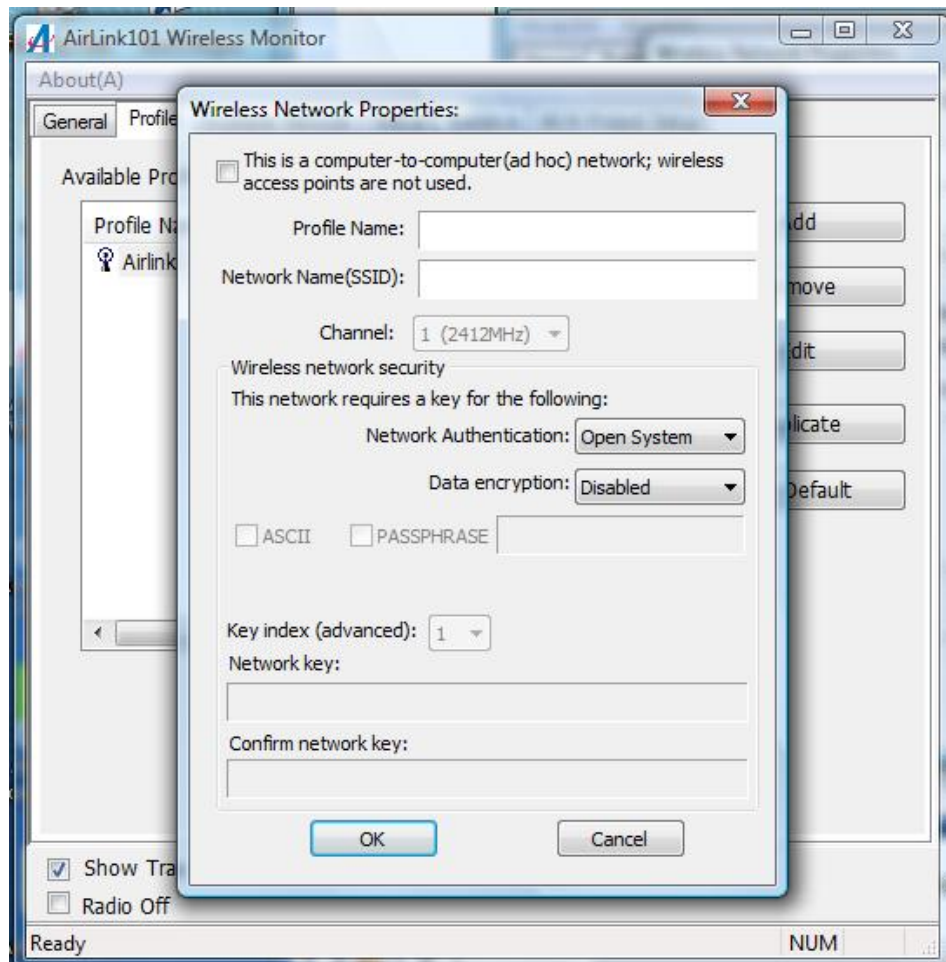
The **Available Profile(s)** box lists all the profiles that you've created for your network. A profile is automatically created and added to this list when you connect to a new network. You can also manually add a profile.

To modify an existing profile, select the profile from the **Available Profile(s)** box and click on **Edit**. The **Profile** box will appear allowing you to modify the settings for this profile

To create a new profile, click on **Add**. The **Profile** box will appear allowing you to specify the settings for your new profile.



Enter the profile settings here, including Profile Name, SSID, Network Authentication, Data Encryption and Network Key. Click **OK** to save the changes.

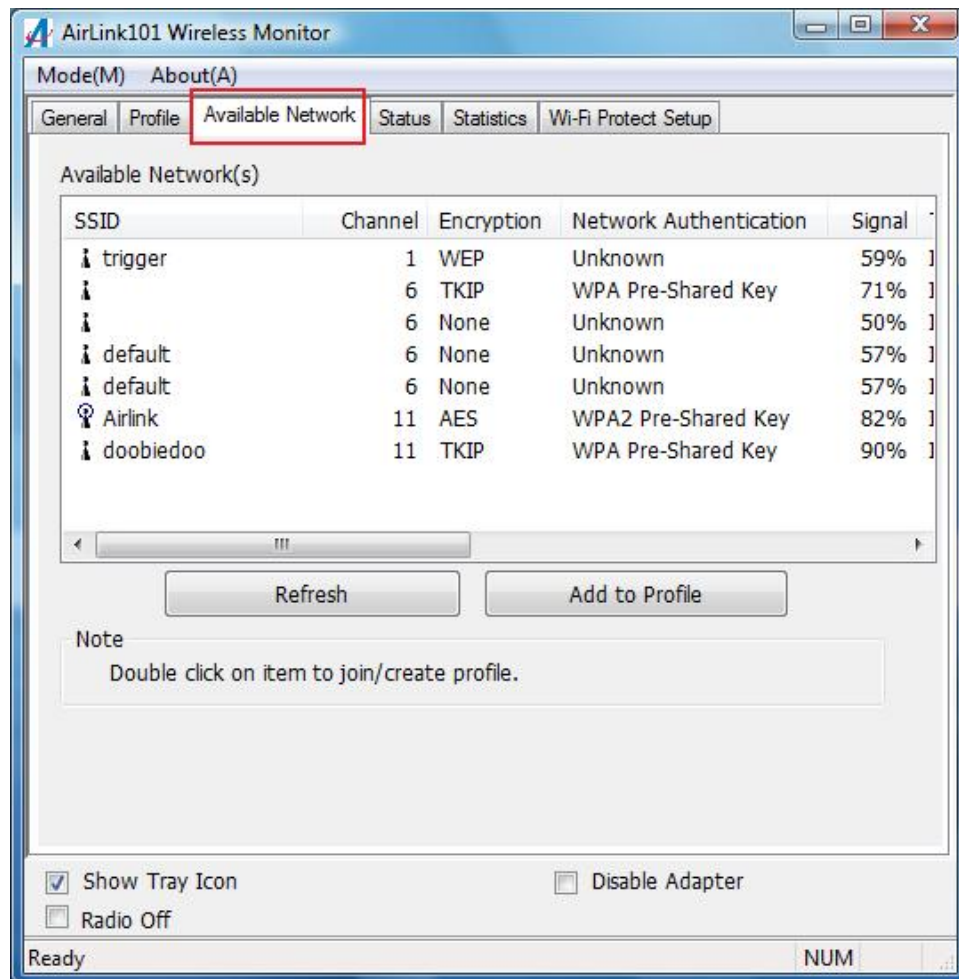


The section 4.7, Configuring Encryption will give you the information of how to set the different options of the wireless network encryption settings.

### 4.3 Available Network

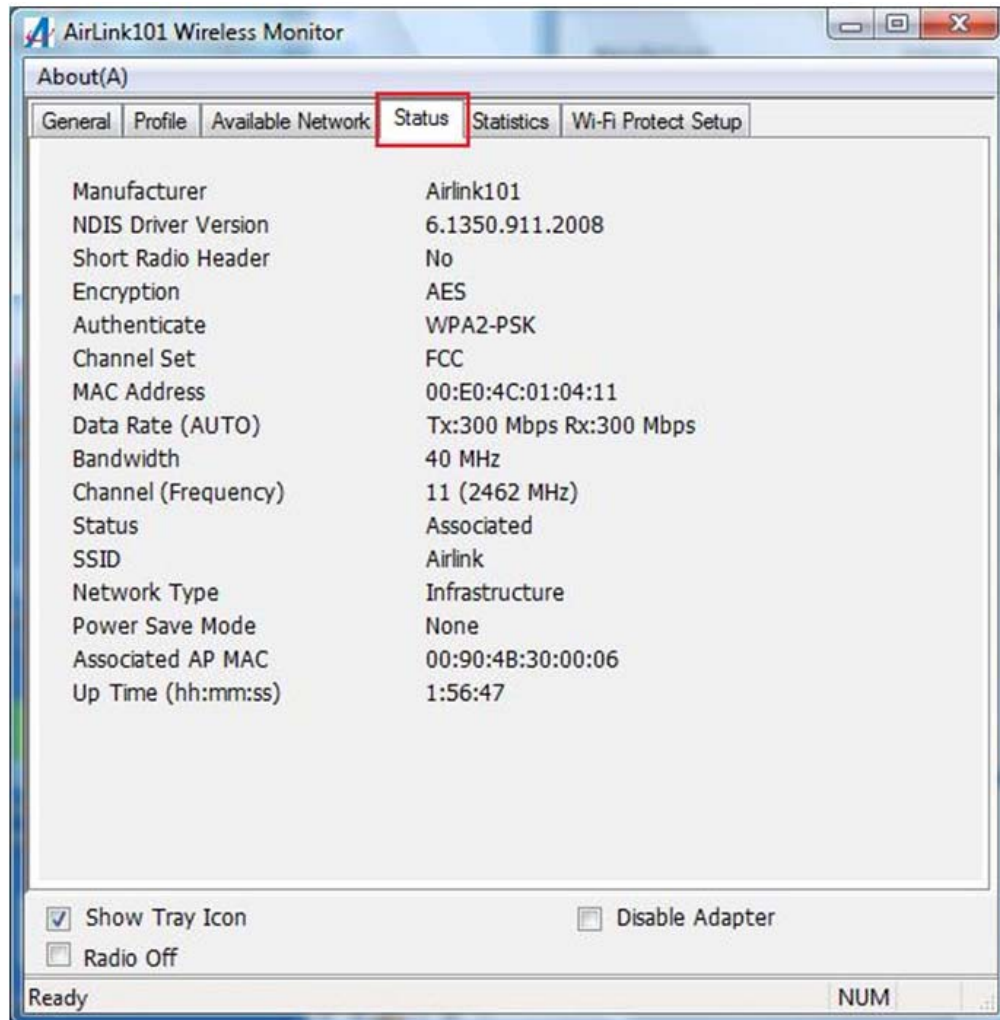
The Available network tab lists all of the networks that the adapter detects in your area.

Clicking **Refresh** will refresh the list. To connect to a network, select a network from the list and click **Add to Profile**.



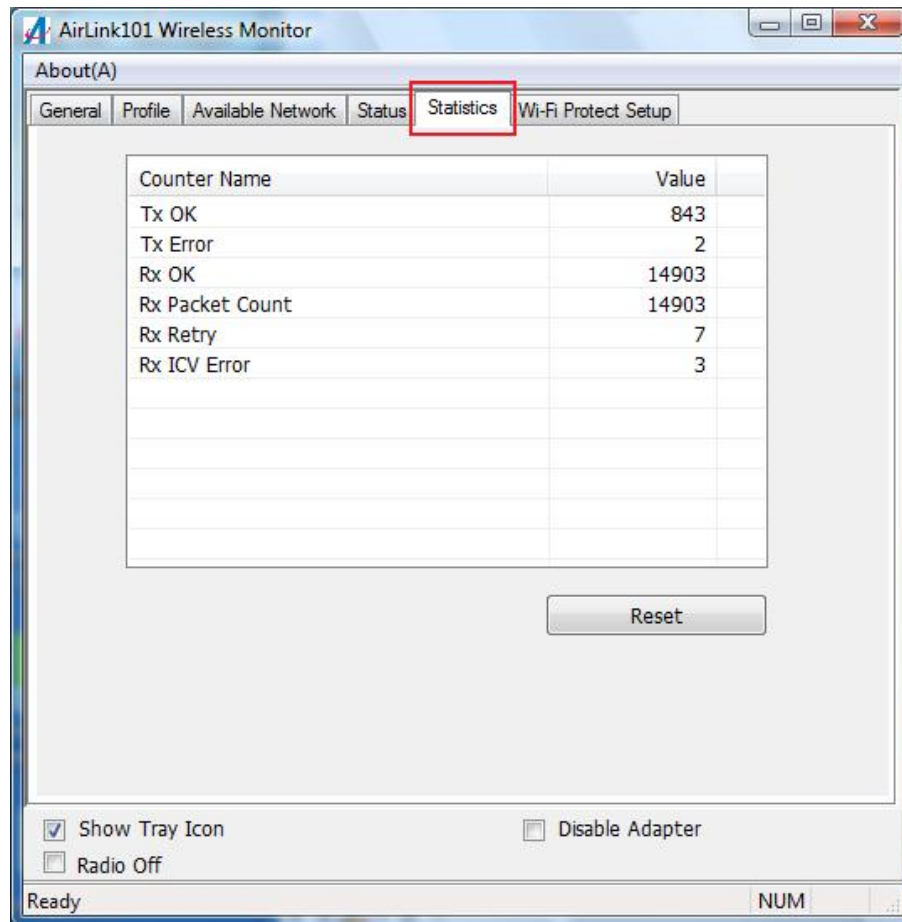
## 4.4 Status

The status section provides you with a list of information about the current status of the adapter.



## 4.5 Statistics

The Statistics section gives you information about transmit and receive packet count.

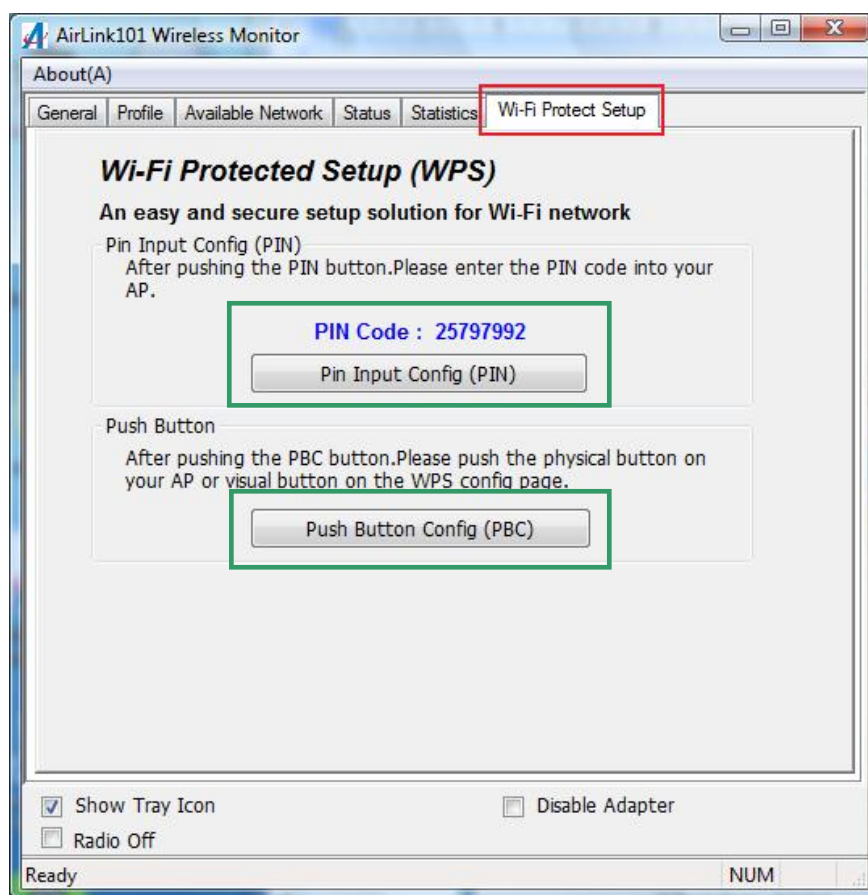


## 4.6 Wi-Fi Protected Setup (Easy Setup Button)

The Wi-Fi Protected Setup™ (**Easy Setup Button**) is a new and easy way to configure the encryption for your wireless network clients. In order to use it, you need to have a router that supports this feature, like the AR670W Airlink101 Wireless N Router. You also need to configure the wireless encryption on the router; you should find the instructions of how to configure it in the router's user manual. If your wireless router does not support this feature, you will need to set up the wireless security manually and you can skip this section.

We are using the Golden 300N Wireless USB Adapter and the AR675W Airlink101 Wireless N Green Router to illustrate the following setup instructions.

**Step 4.6.1** Open the Airlink101 Wireless Monitor. Click the **Wi-Fi Protect Setup** tab.

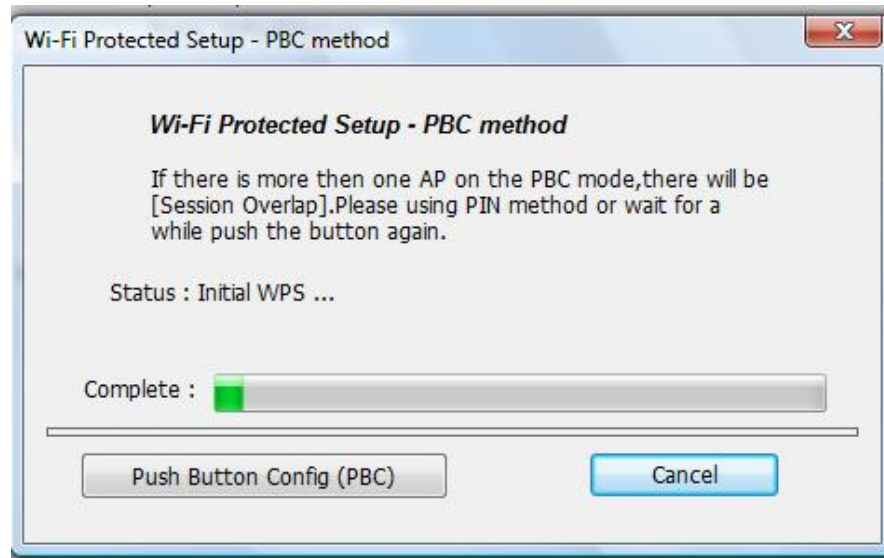


Choose your configuration method:

- For **Push Button method**, click Push Button Config (PBC) button, continue to Step 4.6.2

- For **Pin Input Config** method, click Pin Input Config (PIN) button, continue to Step 4.6.3a

**Step 4.6.2** When you see this window pops up,



in the following 2 minutes, push the Easy Setup Button (i.e. WPS button) on the router and hold for 3 seconds.



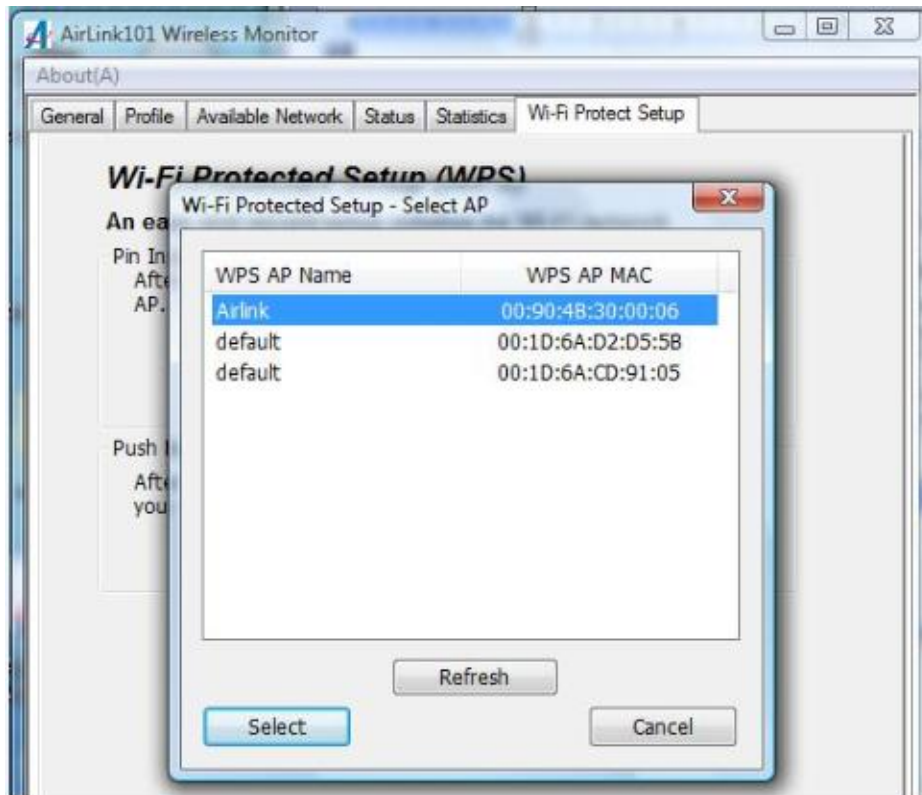
The router will now start to synchronize the security settings with the wireless USB adapter. The connection will be built within 2 minutes.

**Step 4.6.3a** If you choose the Pin Code method, click **Yes** when prompted with the question “Do you want to select a specific AP?”.



Select the Access Point that you want to connect, and then click **Select**.





Write down the **PIN Code** on a piece of paper.





**Step 4.6.3b** Log on to your router's configuration page from the web browser and click on **Wireless**. Then click **WPS**.

**Step 4.6.3c** Make sure that the Disable WPS is NOT checked. Enter the Pin Code in the **Client Pin Number** box and click **Start PIN**.

After a few moments both the router configuration screen and the adapter configuration screen should show a message telling you that a connection is established.

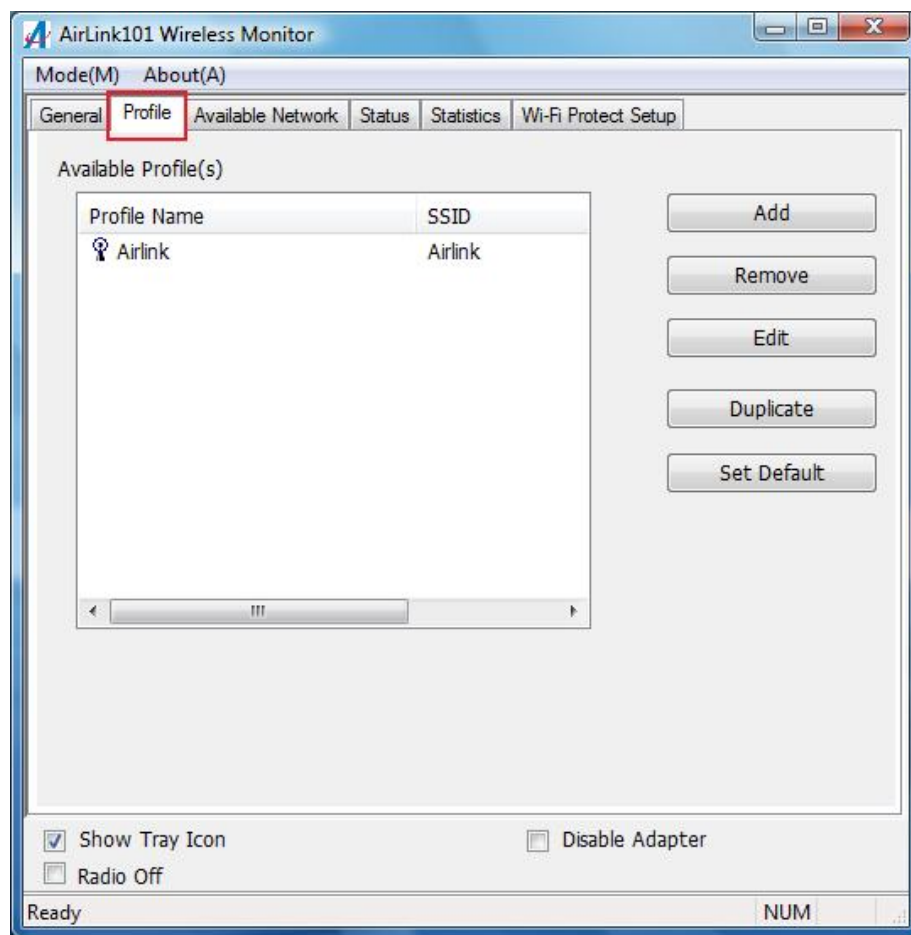
**Note:** If you cannot connect successfully with WPS, you need to log in to your router's configuration and click on **Wireless**, then click **WPS**. Make sure that the Disable WPS box is NOT checked.

## 4.7 Configuring Encryption

This section describes the available encryption types and how to configure them. In most cases, encryption type will be automatically detected by the wireless USB adapter; all you need to do is to enter the Network key, as described in **Section 3, Step 3.4**.

If you are creating a custom profile, you need to manually configure the encryption settings. The encryption settings you configure must match the settings on the AP or wireless router you wish to connect to. Please follow the instructions below.

Open the **Wireless Monitor** utility, click **Profile** tab and then click **Add**.



The available options of wireless network encryption settings are:

**Disable:** No encryption in use

**WEP:** The most popular but least secure form of encryption (Open System/Shared Key)

**WPA/WPA2-PSK:** The most secure and recommended level of encryption

### 4.7.1 Configuring WEP encryption

The image shows a 'Wireless Network Properties' dialog box. It has a title bar with a close button (X). Inside, there's a checkbox 'This is a computer-to-computer(ad hoc) network; wireless access points are not used.' Below it are text boxes for 'Profile Name:' and 'Network Name(SSID):'. A 'Channel:' dropdown is set to '1 (2412MHz)'. The 'Wireless network security' section contains the text 'This network requires a key for the following:'. Below this are two dropdowns: 'Network Authentication:' set to 'Open System' and 'Data encryption:' set to 'WEP'. Both dropdowns are highlighted with red boxes. Below these are two checkboxes, 'ASCII' and 'PASSPHRASE', followed by a text box. A green box highlights the 'ASCII' checkbox and the text box. Below this is a 'Key index (advanced):' dropdown set to '1'. At the bottom are two text boxes labeled 'Network key:' and 'Confirm network key:', both highlighted with a red box. At the very bottom are 'OK' and 'Cancel' buttons. A black arrow points from the 'Data encryption' dropdown to the 'PASSPHRASE' checkbox area.

Select **WEP** from the **Data encryption** box.

Under **Network Authentication**, select either **Shared key** or **Open System**, depending on the router settings.

If your WEP key is 5 or 13-digit, alphanumeric :

- Check **ASCII** and enter your WEP key into the box next to Passphrase

If you use Passphrase to setup the WEP encryption for your router :

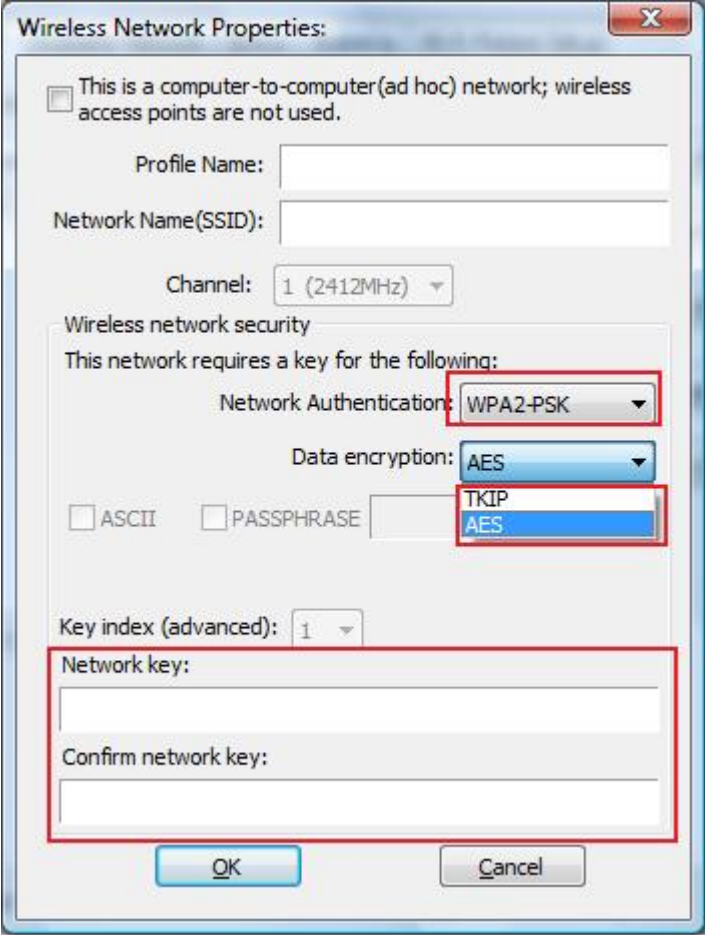
- Check **PASSPHRASE** and enter your key into box next to Passphrase.

If your WEP key is 10 or 26-digit, hexadecimal (0~9, A~F) :

- **Key Index** is the key of the router that is currently in use. Enter the network security key that matches the one on the router to **Network key** and **Confirm network key** boxes.

Click **OK** to save your settings.

#### 4.7.2 Configuring WPA/WPA2-PSK Encryption (for home users)

The image shows a Windows-style dialog box titled "Wireless Network Properties:". It contains several fields and options for configuring a wireless network. At the top, there is a checkbox labeled "This is a computer-to-computer (ad hoc) network; wireless access points are not used." Below this are text boxes for "Profile Name:" and "Network Name (SSID):". A "Channel:" dropdown menu is set to "1 (2412MHz)". The "Wireless network security" section is expanded, showing "This network requires a key for the following:". Under "Network Authentication:", the dropdown menu is set to "WPA2-PSK". Under "Data encryption:", the dropdown menu is set to "AES". There are also checkboxes for "ASCII" and "PASSPHRASE". Below these, a "Key index (advanced):" dropdown is set to "1". At the bottom of the security section, there are two text boxes labeled "Network key:" and "Confirm network key:". The "OK" and "Cancel" buttons are at the bottom of the dialog box. Red rectangular boxes highlight the "WPA2-PSK" dropdown, the "AES" dropdown, and the "Network key:" and "Confirm network key:" text boxes.

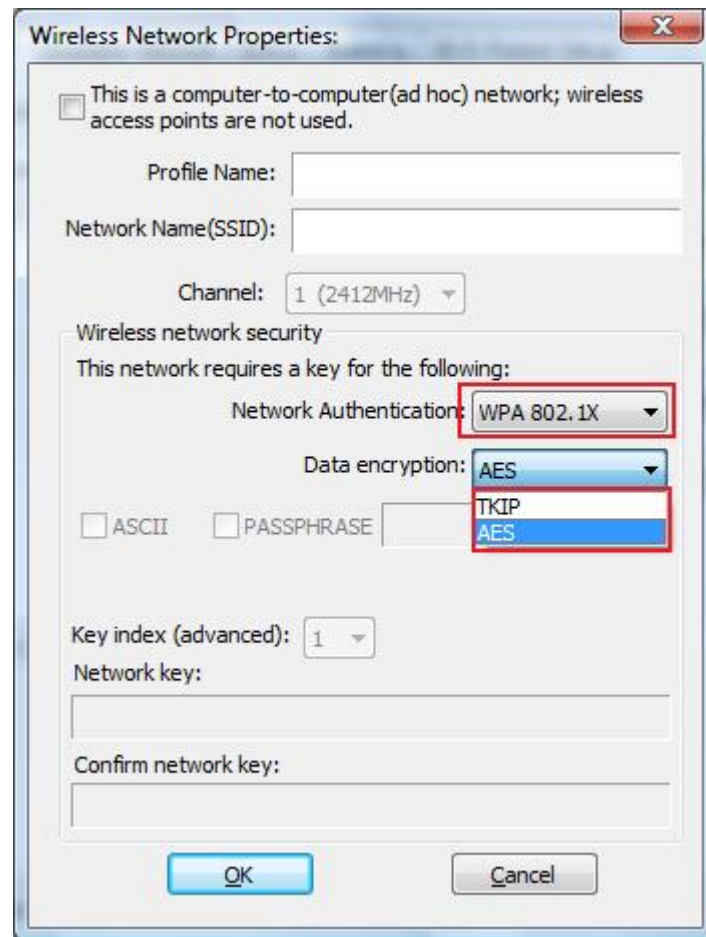
Select **WPA-PSK/WPA2-PSK** from the **Network Authentication** box.

Under **Data encryption** select either **AES** or **TKIP** depending on the settings for your router.

Enter the encryption key that the router is using into the **Network Key, Confirm network key** boxes.

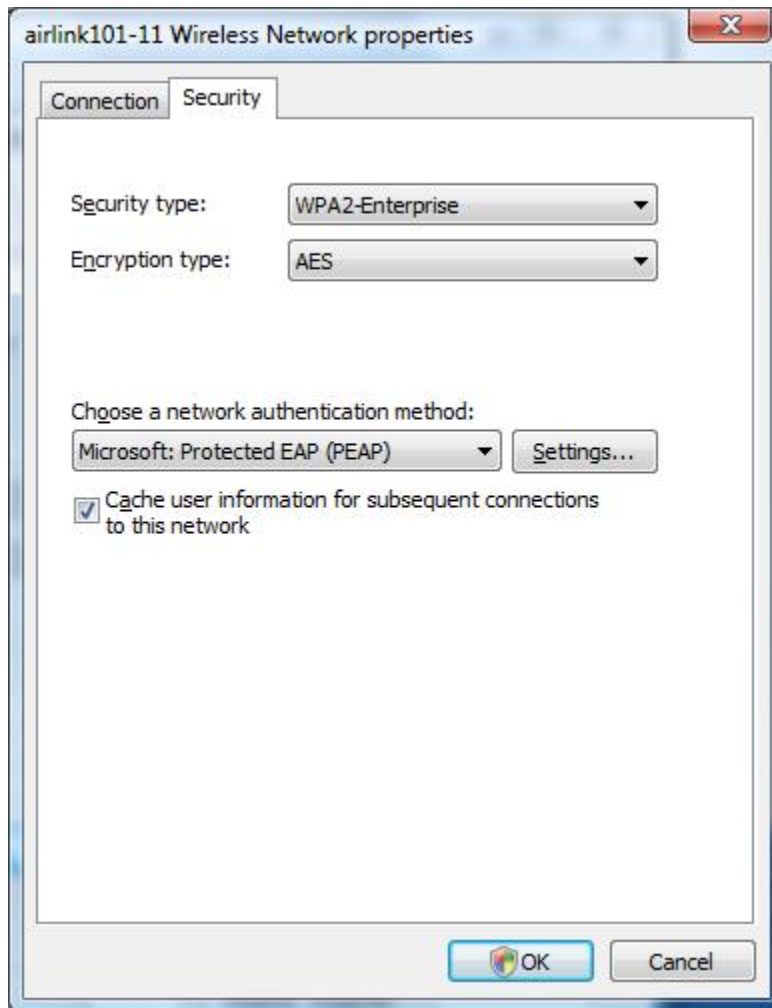
Click **OK** to save your settings.

### 4.7.3 Configuring WPA/WPA2 Encryption (for corporate networks)



Select **WPA 802.1x / WPA2 802.1x** from the **Network Authentication** box and click **OK**.

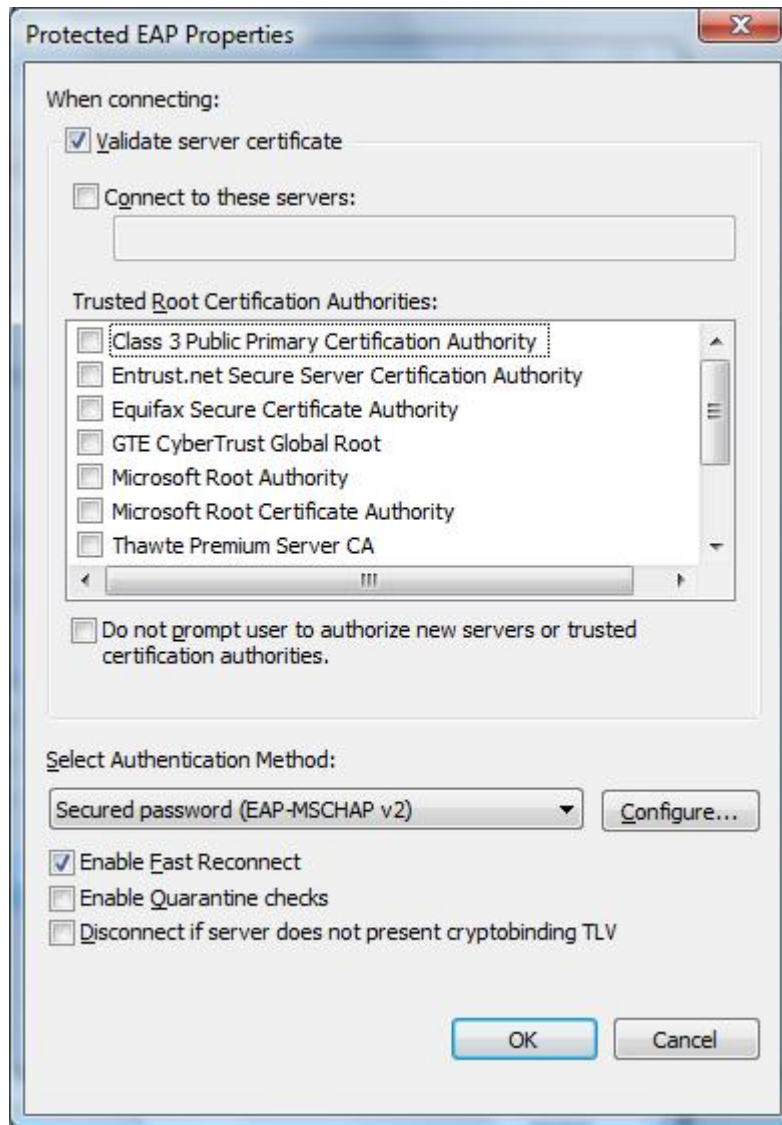
The following window will pop up after few seconds.



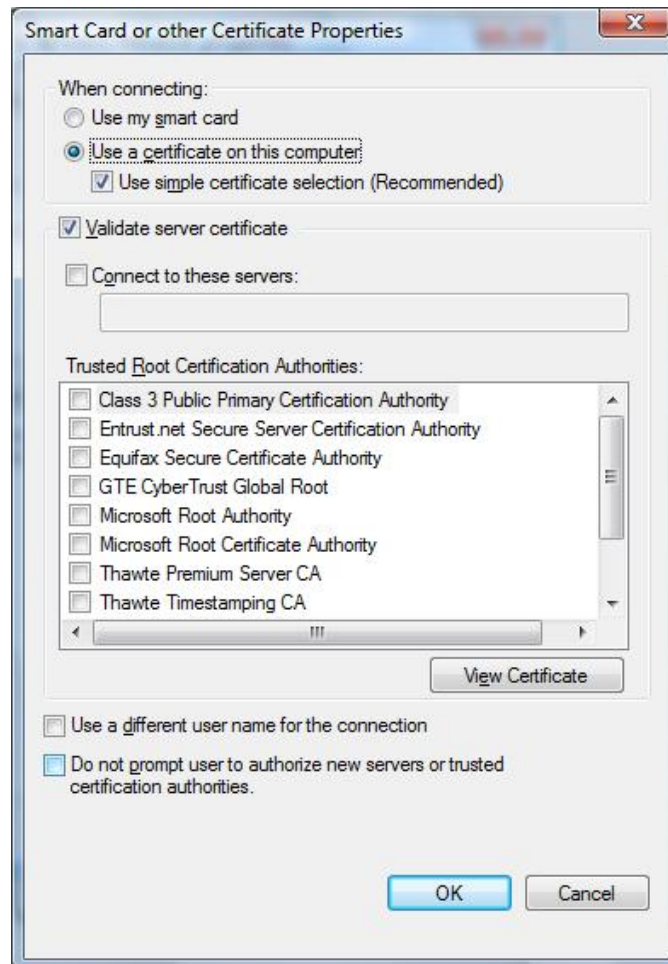
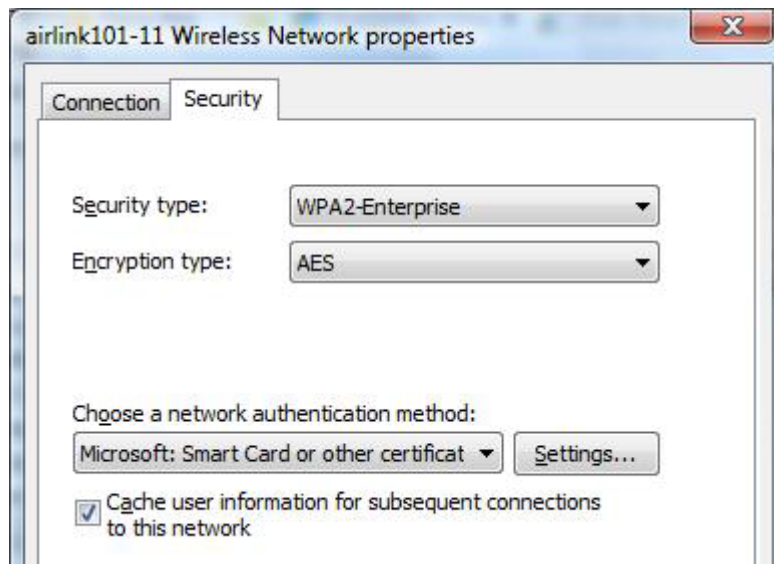
You can choose a network authentication method: **Protected EAP** or **Smart Card or other Certificate** then click **Settings** to configure the advanced settings.

1) Choose **Protected EAP** then click on **Settings** to configure the advanced security settings.

Configure the advanced security settings for PEAP then click **OK**. Refer to your system administrator for information about what settings you should enter here.



2) Choose **Smart Card or other Certificate** then click on **Settings** to configure the advanced security settings. Refer to your system administrator for information about what settings you should enter here.





## 4.8 Ad-hoc and Peer-to-Peer Wireless Networks

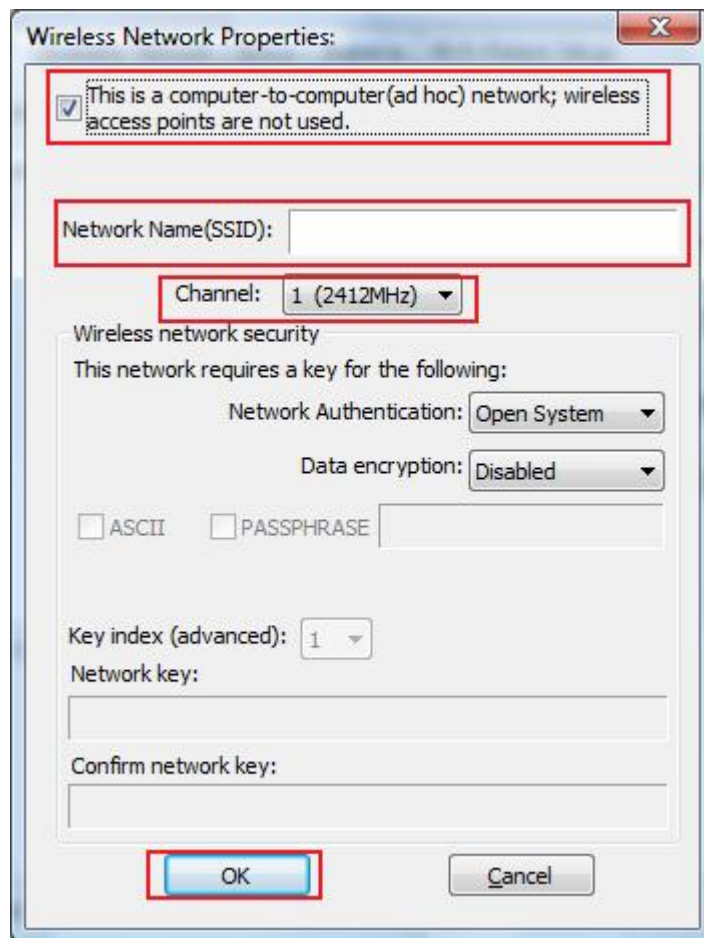
Ad-hoc networking is used when you want to connect two or more computers together without going through a router.

In ad-hoc mode, you lose a lot of the features that come with a router. The maximum connection speed drops to 11Mbps. In addition, WEP encryption is the only security available in ad-hoc mode.

To set up ad-hoc mode, you will need to create a new profile.

Open the **Wireless Monitor**.

Click on **Profile** and click on **Add**. The profile settings box will appear.

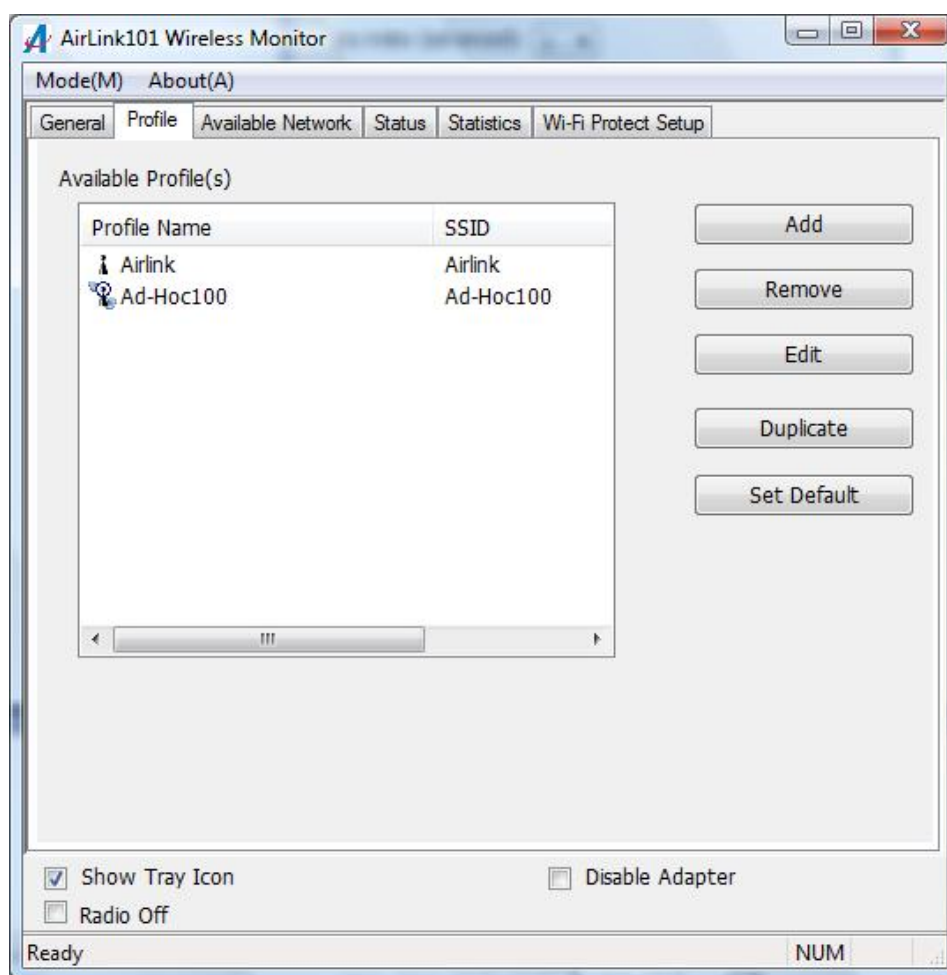
The image shows a Windows-style dialog box titled "Wireless Network Properties:". It contains several fields and options. At the top, there is a checkbox labeled "This is a computer-to-computer (ad hoc) network; wireless access points are not used." which is checked. Below this is a text field for "Network Name (SSID)". Underneath that is a dropdown menu for "Channel" currently set to "1 (2412MHz)". The "Wireless network security" section follows, with a note "This network requires a key for the following:". It includes "Network Authentication" set to "Open System" and "Data encryption" set to "Disabled". There are checkboxes for "ASCII" and "PASSPHRASE", with a text field next to "PASSPHRASE". Below these is a "Key index (advanced)" dropdown set to "1". At the bottom of the security section are two empty text fields labeled "Network key:" and "Confirm network key:". At the very bottom of the dialog are "OK" and "Cancel" buttons. Red rectangular boxes are drawn around the "This is a computer-to-computer..." checkbox, the "Network Name (SSID)" field, the "Channel" dropdown, the "OK" button, and the "Wireless network security" section header.

First change the network type to **Adhoc**, by checking the computer-to-computer (ad-hoc) network.

Enter a network name (SSID) into the **SSID** box. Select your desired Channel.

You can also choose between no security or WEP security. If you choose WEP security, you can follow the instructions in the **Configuring Encryption** section of the manual.

Click **OK** to save the profile.

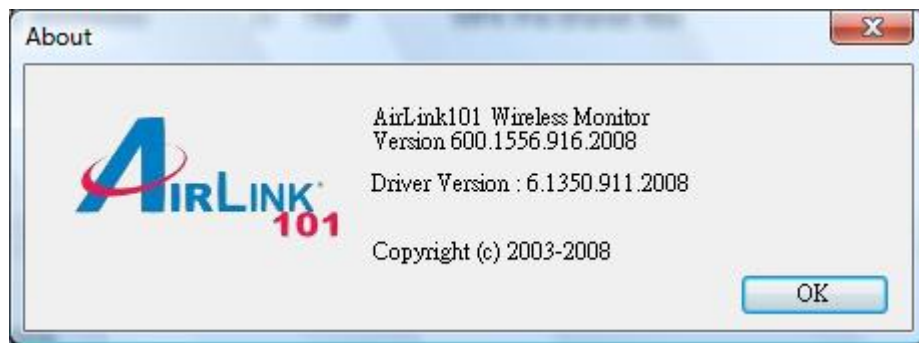


Select your new profile from the Available Profile(s) box, and double click to enable it.

You need to configure all other computers that you are planning on connecting to your ad-hoc network with the same settings that you input on this screen. Every computer has to be set up exactly the same. If any of the settings are different, the network will not function.

**Note:** If you are having trouble connecting, slow connection, or connection is unstable, you will want to try changing channels. Start with channel 1 and work your way up until you find a channel that gives you the best connection. Each time you change the channel, save the settings then reboot the computer. Also, make sure that you do this on every ad-hoc machine so that they will all be set to the same channel.

## 4.9 About



The **About** window provides the information about the Wireless Monitor Utility version and the current driver version.

## 5. Troubleshooting

1. If you cannot open the wireless monitor utility, make sure that the USB adapter is inserted firmly into the USB port.
2. If you cannot connect to the wireless router, you may want to double check the wireless security settings on the router. The network key you entered in Step 3.4 must match with the settings on the wireless router.
3. If you are experiencing problems with the connection such as low signal strength, slow connection speed, or unstable wireless connection, you can try to tune your router's signal by changing the channels on the router and/or by adjusting the direction of the antenna(s). You do not need to change the channel on the Adapter; it will automatically pick up the new channel after you reboot the router. Your router has 11 different channels to choose from. Keep going through the channels until you find one that gives you a stable connection. For instructions on changing channels, refer to the documentation that comes with the router.

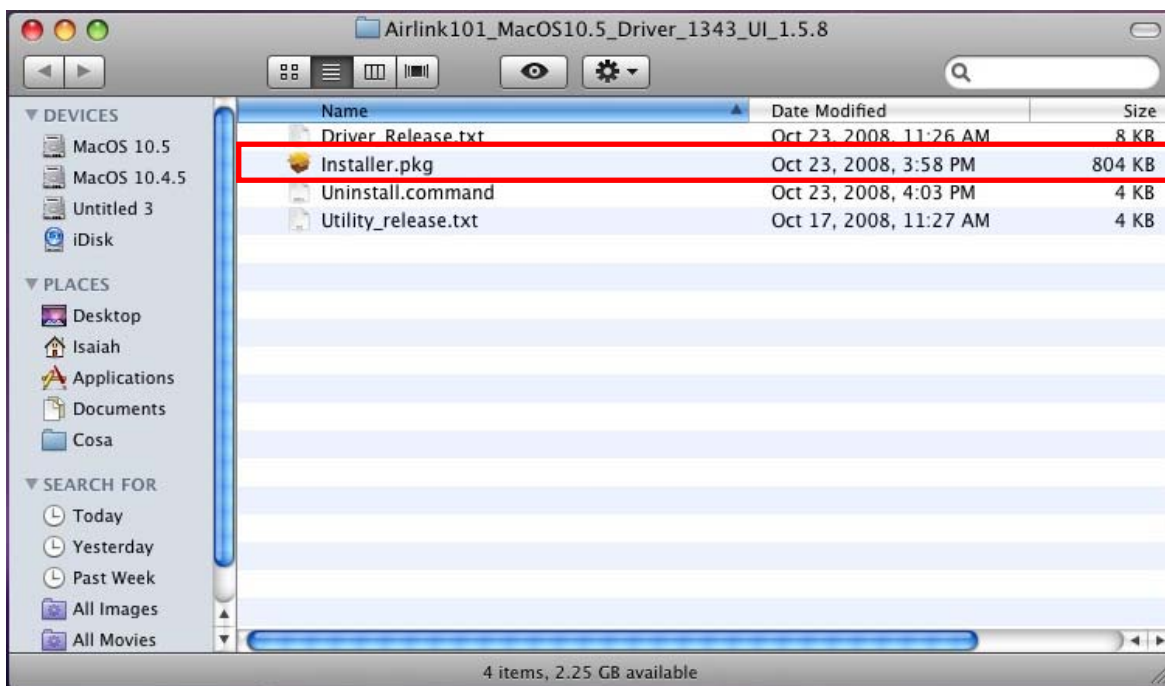
## 6. Install Wireless USB Adapter for MAC OS

### 6.1 Install Driver and Utility

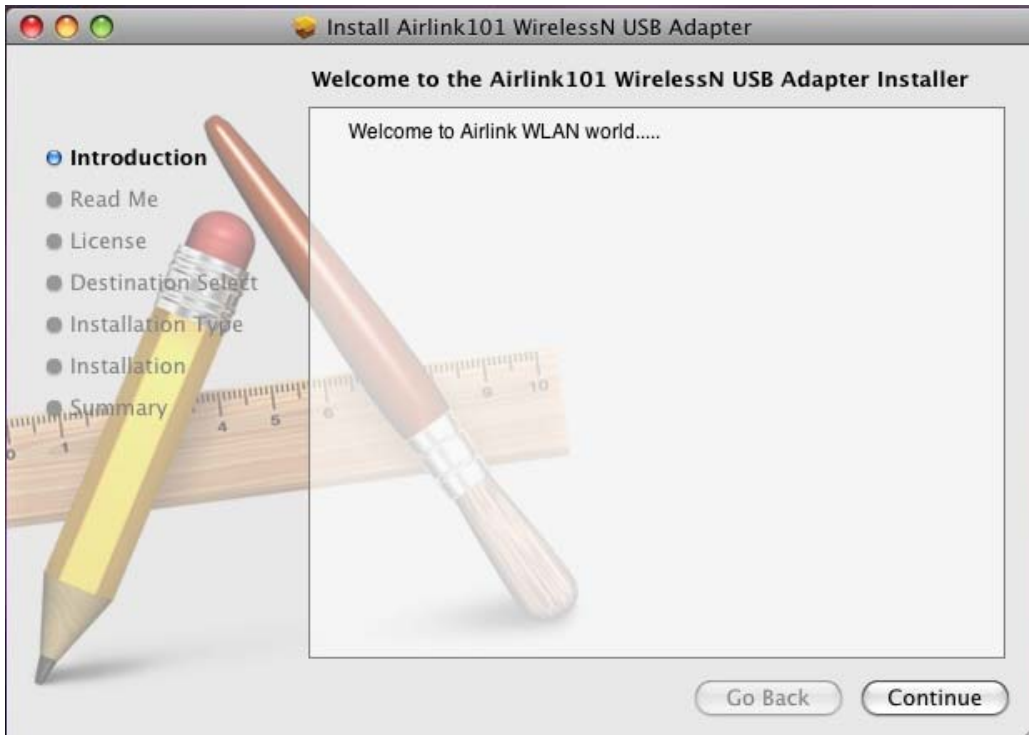
This section provides instructions on how to install the **Golden 300N Wireless USB Adapter** in **MAC OS**. The driver is installed along with the utility.

**Step 6.1.1** Insert the USB adapter into an available USB port of the computer. Insert the installation CD into the CD drive.

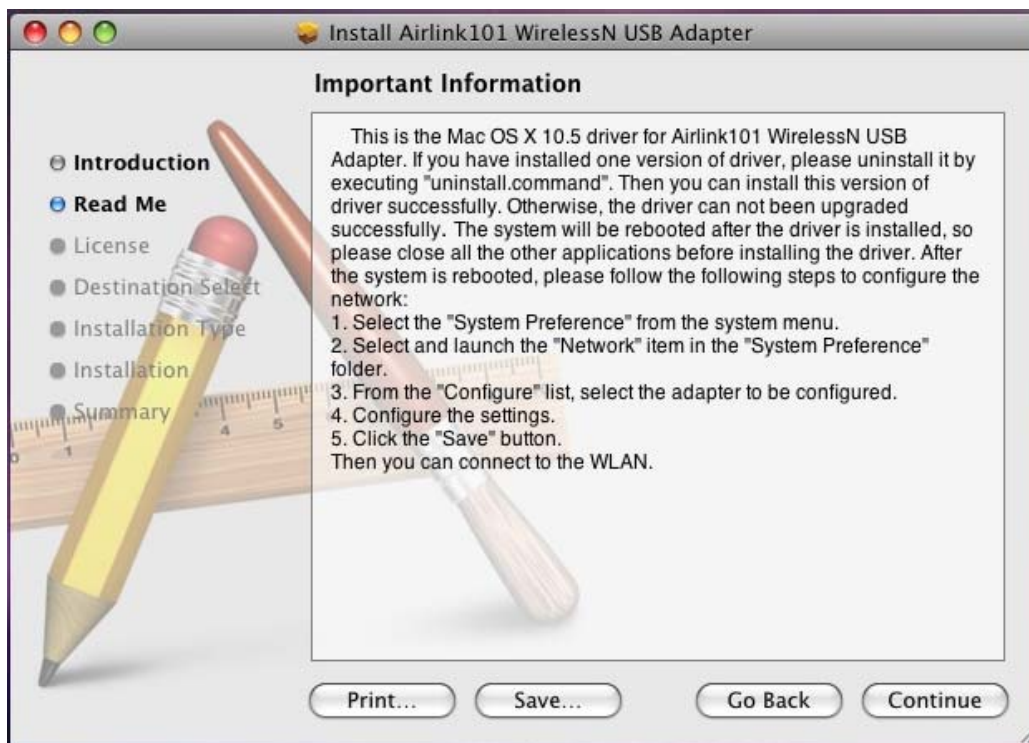
**Step 6.1.2** Explore the CD content, go to **MacOS10.4\_10.5\_Driver** folder. Double-click **Installer.pkg** from the folder.



**Step 6.1.3 Introduction:** The “Install Airlink101 Wireless N USB Adapter” screen will pop up. Click **Continue**.

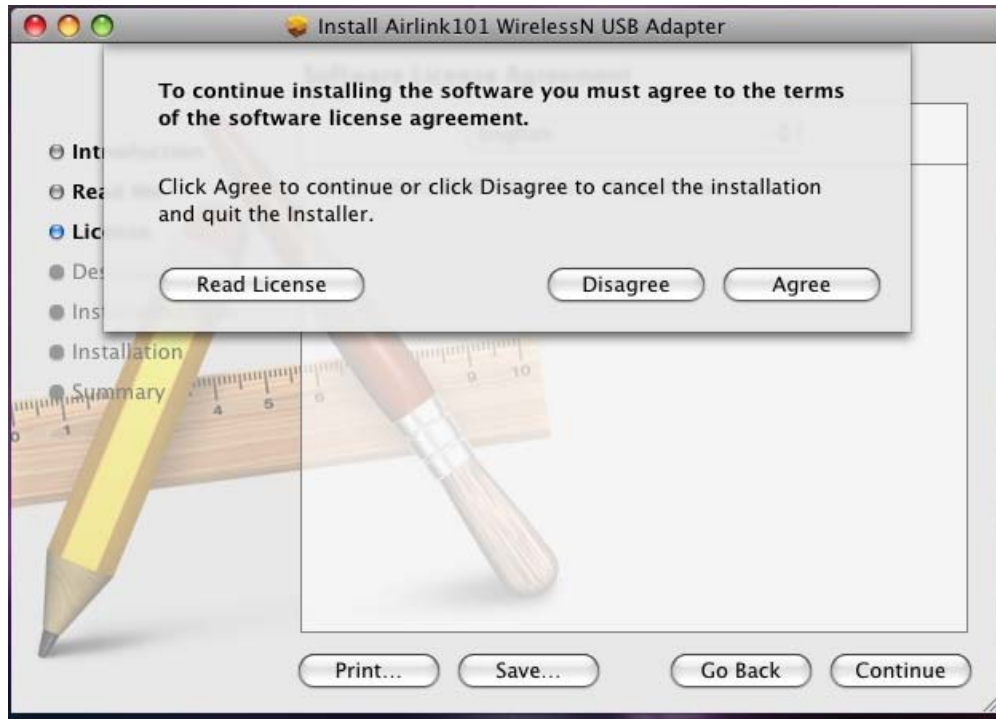


**Step 6.1.4 Read Me:** Click **Continue** to begin the installation.

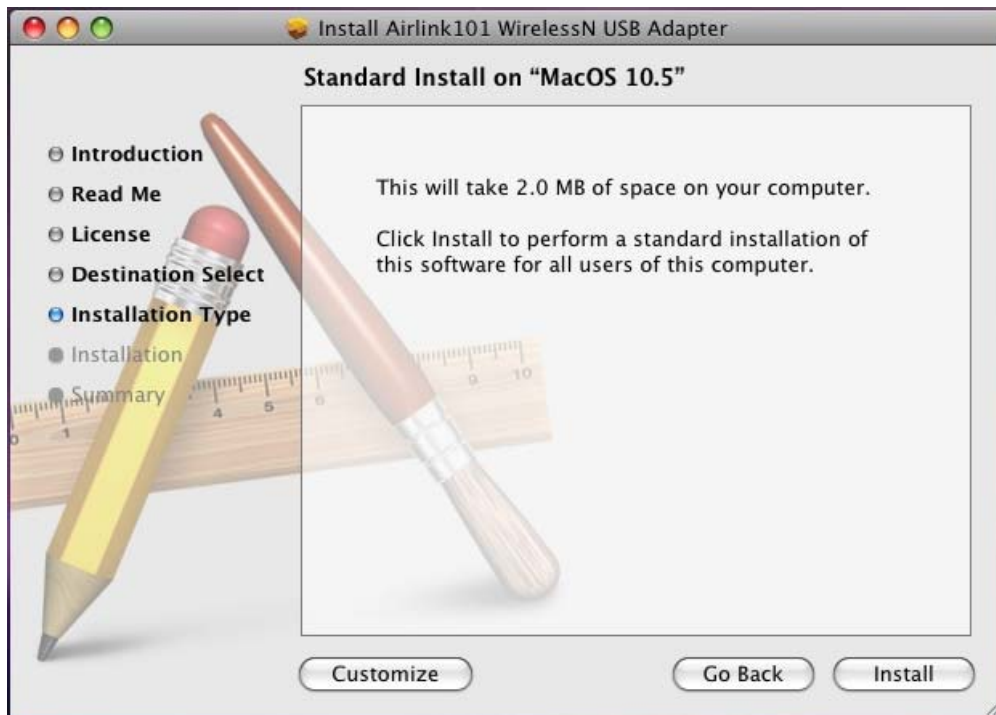


**Step 6.1.5 License:** Click **Continue**.

Click **Agree** to install. Click Disagree to quit.



**Step 6.1.6 Installation Type:** click **Install** to perform a standard installation.





Enter your password and click **OK**.



Click **Continue Installation**.

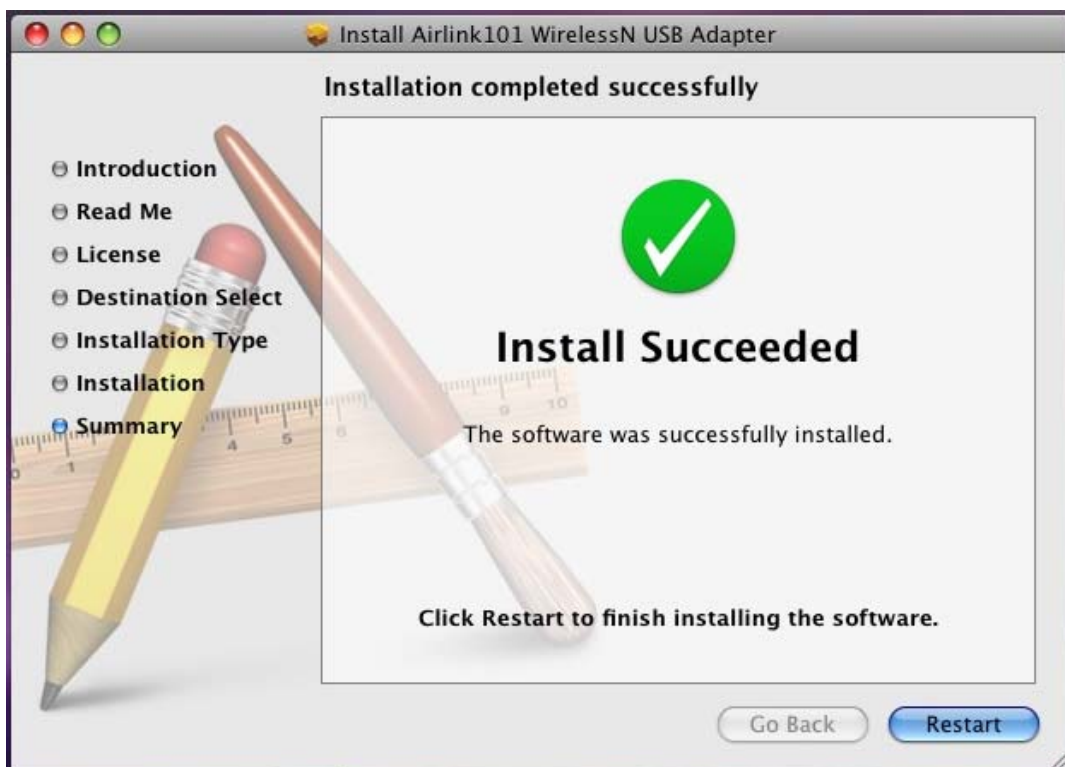




**Step 6.1.7 Installation:** Wait while the software is being installed.



**Step 6.1.8 Summary:** Click **Restart** to restart your computer.



## 6.2 Connect to Wireless Network

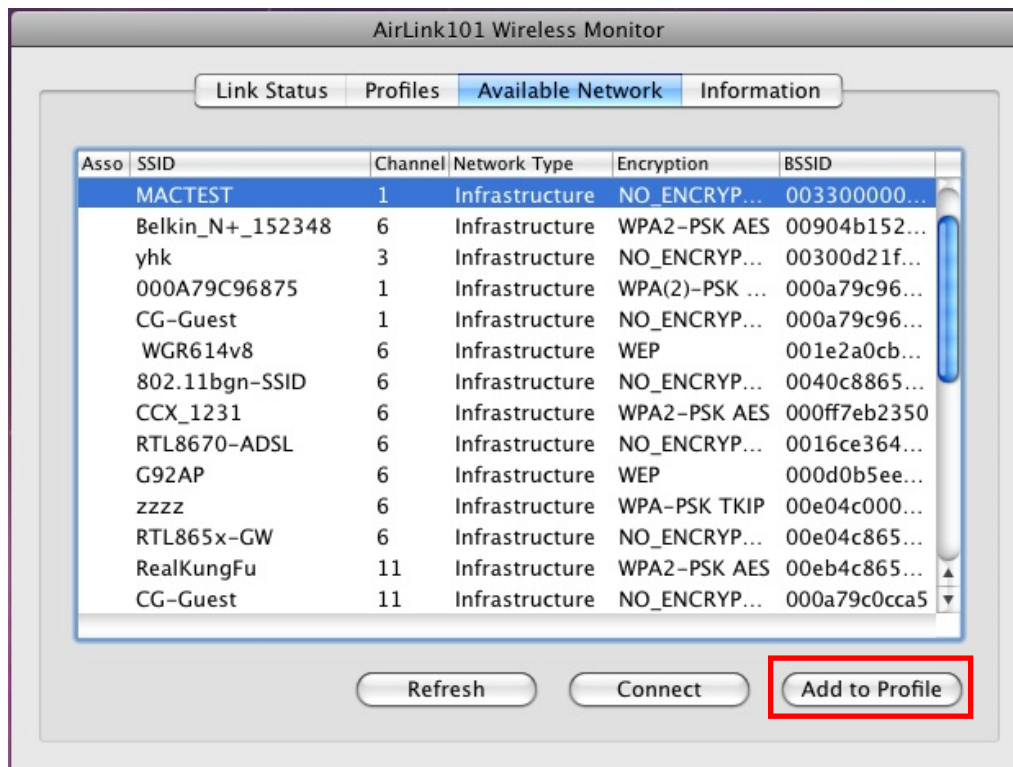
This section describes how to connect your wireless adapter to a wireless network.

**Note:** Please select the wireless adapter you just installed in System Preferences// Network and click Apply Now.

Open the Airlink101 Wireless Monitor utility by double clicking on the Airlink101 Wireless Monitor Utility icon in the system tray at the bottom of your screen.



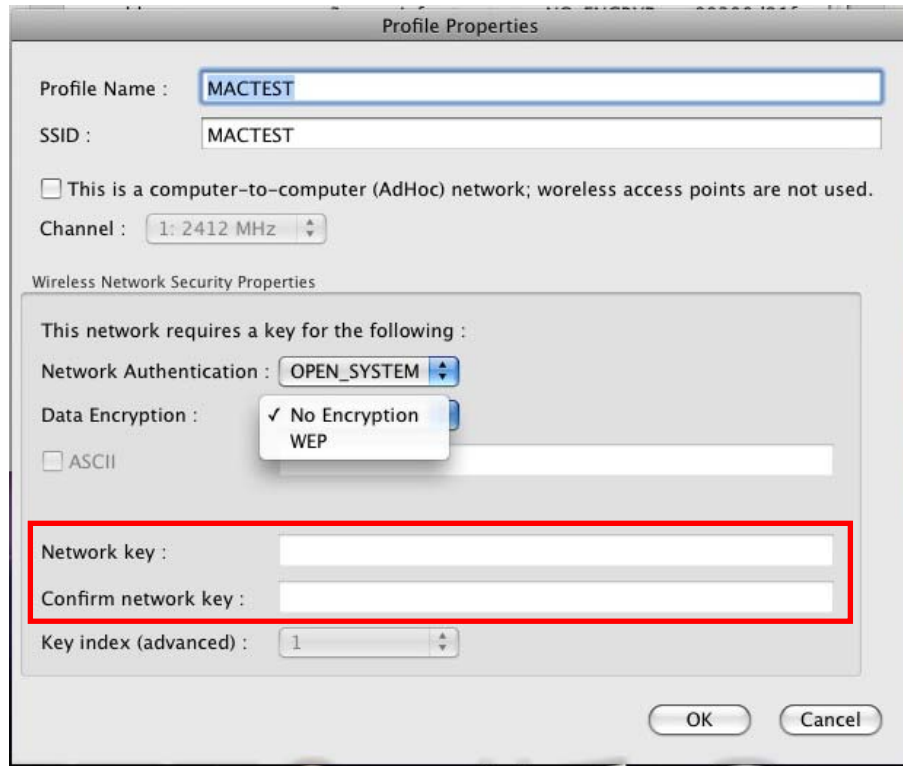
**Step 6.2.1** Click the **Available Network** tab, select the SSID (Network Name) of the wireless network you wish to connect to, and click **Add to Profile**.



If the network that you are attempting to connect does not have encryption enabled, you will receive a warning about connecting to an unsecured network. Click **OK** to complete the connection. Go to Step 6.2.3.

If the network that you are attempting to connect is configured for encryption, the Wireless Network Properties window will appear:

**Step 6.2.2** Enter your network security key in the **Network key** boxes and then click **OK** to connect.



The Adapter may automatically detect the type of Network Authentication and Data Encryption. You just need to enter the security settings in the **Network key** boxes according to the settings of the router.

**Step 6.2.3** The connection is now established. You can check the status of your connection under “Link Status” tab. The Connection should be **Connected**, and there should be a blue bar displaying the **Signal Strength**.

You can refer to Section 4, Wireless Monitor for the instructions of configuring Airlink101 Wireless Monitor.

AirLink101 Wireless Monitor

Link Status

Profiles

Available Network

Information

MAC Address :

00e04c012351

SSID :

MACTEST

BSSID :

003300000000

Security :

None

Connection :

Connected

Network Type :

Infrastructure

Channel :

1

Signal Strength:

99%

Turn Radio Off

## Appendix A - Specification

### Frequency Band

- 2.4Ghz

### Standards

- IEEE 802.11b / 802.11g
- IEEE 802.11n draft 2.0

### Interface

- USB 2.0

### Data Rate\*

- Downlink: 300Mbps
- Uplink: 300Mbps

### Antenna type

- Built-in 2 print antennas

### Security

- WPA2/WPA-PSK (TKIP, AES)
- WEP 64, 128-bit
- 802.1x (supported in Windows only)

### LED

- Link/Power

### QoS

- WMM

### System requirement

- Windows 7, Vista, XP, 2000
- MAC OS 10.4, 10.5
- Available USB slot

### Weight

- 18g

### Dimensions

- 81 x 23 x 10.5mm (L x W x H)

### Temperature

- Operating: 0°C to 55°C
- Storage: -20°C to 70°C

### Humidity

- Operating: 10% to 80% Non-Condensing
- Storage: 5% to 90% Non-Condensing

### Warranty

- Limited 1-year warranty

### Safety Approvals

- FCC, CE, IC

## Technical Support

E-mail: [support@airlink101.com](mailto:support@airlink101.com)

Toll Free: 1-888-746-3238

Web Site: [www.airlink101.com](http://www.airlink101.com)

\*Theoretical maximum wireless signal rate derived from IEEE standard 802.11g and draft 802.11n specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, mix of wireless products used, radio frequency interference (e.g., cordless telephones and microwaves) as well as network overhead lower actual data throughput rate. This product is based on IEEE draft 802.11n specification and is not guaranteed to be compatible with future versions of IEEE 802.11n specification. Compatibility with draft 802.11n devices from other manufactures is not guaranteed. Specifications are subject to change without notice. Photo of product may not reflect actual content. All products and trademarks are the property of their respective owners. Copyright ©2009 Airlink101®